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A

FAMILIAR TREATISE

ON THE

PHYSICAL EDUCATION

OF

CHILDREN.

[*Entered at Stationers' Hall.*]

A

FAMILIAR TREATISE

ON THE

PHYSICAL EDUCATION

OF

CHILDREN,

DURING THE EARLY PERIOD OF THEIR LIVES.

BEING

A COMPENDIUM ADDRESSED TO ALL MOTHERS WHO ARE SERIOUSLY CONCERNED FOR THE WELFARE OF THEIR OFFSPRING.

TRANSLATED FROM THE GERMAN OF

CHRISTIAN AUGUSTUS STRUVE, M. D.

PHYSICIAN AT GÖRLITZ, IN SAXONY; HONORARY MEMBER OF THE ROYAL HUMANE SOCIETY OF LONDON, AND OF SEVERAL LITERARY INSTITUTIONS.

WER FÜR SEIN LIEBSTES SORGT, FIND'T REITZ IN JEDER PFLICHT.

HALLER.

TO WHICH ARE PREFIXED,

THREE INTRODUCTORY LECTURES

ON THE SAME SUBJECT:

BY A. F. M. WILLICH, M. D.

AUTHOR OF THE LECTURES ON DIET AND REGIMEN, &c. &c.

LONDON:

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TO

HIS ROYAL HIGHNESS

THE DUKE OF CLARENCE,

WHO IS EQUALLY CONSPICUOUS AS

AN ENLIGHTENED SENATOR,

A PATRIOTIC ECONOMIST,

AND

A VALUABLE MEMBER OF SOCIETY,

THIS WORK IS MOST HUMBLY INSCRIBED,

BY

THE EDITOR.

ADVERTISEMENT.

THE Treatise here offered to a liberal and discerning Public, in an English dress, requires no additional commendation; as the Author has distinctly declared his sentiments, and explained the practical aim of his labours, in the succeeding Preface.

But with respect to the origin of the "*Three Introductory Lectures*" prefixed to this volume, perhaps a short historical account may be necessary. In May last, I published, and circulated in the most respectable circles of my neighbourhood, a printed Address "*To Mothers, and Guardians of Families:*" by which I invited them, especially females, to attend the Lectures above alluded to, without any view of temporary emolument. Although I must acknowledge the boldness of this measure, yet I do not hesitate to lay the contents of the following paper before the public:

"In a country which ranks high among the polished nations of Europe, it would be a presumptuous attempt to dictate laws and regulations for the education of children. But though it cannot be denied, that we already possess much valuable information, scattered in a variety of works, yet every judicious person, acquainted with the nature and tendency of such books, will readily allow, that they are scarcely more than insulated fragments; while there exists no complete and systematic treatise on the subject.

"The physical treatment of children, during the first years of infancy, is unquestionably one of the most important of human pursuits; inasmuch as health or disease, nay, life or death, materially depend on the proper conduct of parents and guardians, in this essential part of their duty. That such method, however, has not hitherto been made a peculiar object of inquiry, *in domestic life*, is evident, not only from the great proportion of diseased infants, but also from the almost incredible number of those who die at an early period of their existence. Where is the parent

who

who does not experience the bitter pangs of this truth, when he looks around his own friends and connections, or inspects the gloomy bills of mortality? In a metropolis, like London, infancy appears an almost continued train and complication of diseases!

"The Author of this Address, himself a parent, has devoted no inconsiderable portion of his life to the investigation of this subject, and particularly to the discovery of the *causes* which are more or less connected with the production of infantile disorders. He has often felt the difficulties that attend such inquiries; especially when prejudices, on the one hand, and an ill-directed delicacy on the other, frustrate the suggestions of the calm observer, and prevent him from becoming thoroughly acquainted with what an over-affectionate mother, or an ignorant nurse, saw only through a false medium. This is, indeed, a mortifying reflection; for Nature, in all her operations, is as simple as she is regular, unless when checked by the officious hand of man.

"The

"The consequences of such errors, however, are equally serious and permanent: *in the same proportion as we hasten the evolution of powers, and, as it were, invert the order appointed by the* AUTHOR OF NATURE, *we prepare ourselves for the susceptibility of disease, and diminish the prospect of extending human life.* . . . .

"The Preliminary Lectures here announced, are the result of this self-evident proposition: and so long as the general principles which the Author has laid before the public, in the Introduction to his work "On Diet and Regimen," shall remain just and incontrovertible, he presumes to hope that the following Lectures may contribute to the preservation of the health of children, and the consequent happiness of their parents. For he is thoroughly convinced, that disease and danger more frequently arise from the want of knowledge and circumspection, than from a repugnance to adopt proper rules and directions."

The Lectures thus announced, were indeed not numerously, but respectably, attended, at my house in Paddington. As, however,

however, my professional avocations, together with several literary engagements for the ensuing year, did not allow me sufficient time to arrange all my materials on the subject, I have ventured to publish these Introductory Lectures, together with the translation of a work, which is more congenial to my own ideas, and is the result of a more general approximation to my system of training up children, than any other treatise I have hitherto met with in the English, French, or German languages.

Yet, while I pay a just tribute to the undeniable merits of Dr. STRUVE, I cannot refrain from remarking, that his work is, in point of style, a hasty and inelegant production. The constant repetition of ideas and expressions, occurring in almost every page and sentence, has been a severe task for the Translator; in order to avoid, where it was possible, similar redundancy.

Unfortunately, however, the nature of the subject is such, that a strict attention to this circumstance, on *every* occasion, could not be paid, without distorting the sense and arrangement of the original. Nor dare I flatter myself that the rigorous critic will

will find *no* opportunities of censuring both the Author and Translator, in the same person.

Conceiving, nevertheless, that my leisure time could not be better employed than in the cause of truth, and the extirpation of prejudice, I shall be grateful for every useful suggestion, whether coming from a professional or familiar quarter, if it tend in any degree to increase my knowledge, or to rectify my mistakes; to which I am liable, in common with my brethren, as well as the professed critics.

Lisson-Street, Paddington,
December, 1800.

ERRATUM.

At page 274, "ON THE NUTRIMENT OF CHILDREN," the new Section "*On Sleep*," has, by mistake, been inserted in Chapter II.; whereas it ought to have formed the Third Chapter.

THE

THE

AUTHOR's PREFACE.

THE early education of youth has a more important influence on the health and happiness of man, than is generally imagined. As, at this period of our existence, the foundation is laid, either for irremediable debility, or for mental and bodily vigour, it requires constant care, and indefatigable personal attention. Nature intrusted that office chiefly to mothers. To those noble guardians of infancy, who listen to her voice, I presume to dedicate a work containing principles, by a proper application of which, they will not only become happy themselves, but likewise train up chearful and healthy children.

There subsists an indissoluble connection between physical and moral education: if we attend merely to the former, our duty will be imperfectly performed; nor is it possible to attain any degree of perfection in the latter respect, without paying a due regard to the treatment of the body, lest we should be ill prepared to encounter the turbulent vicissitudes of human life. Perhaps, by combining

ing both objects, I have been enabled to reduce the present Treatise to that state, in which it may claim the suffrages of an indulgent public.

In my former publications of a popular nature, I have also endeavoured to point out the most judicious treatment of young people in a *diseased* state; so that the present work may serve as a commentary upon my "Retrospective Tables of the means conducive to the Health of Children*;" or rather, as a counterpart to my "New Manual of Infantine Diseases, for the use of Parents and Guardians*."

The hours which I have employed in the arrangement of a subject highly interesting to myself, may be numbered among the happiest of my life. They have compensated for many disagreeable events, which cannot fail to embitter the situation of a physician, whose lot is frequently an ungrateful practice, during a severe contest with prejudices of every kind, and occasionally too, the

* The first-mentioned publication consists of a few sheets only, printed on one side, in order to suspend them in nurseries, like an almanack; in which form they have been very generally adopted in several provinces of Germany: the second is a complete treatise on that subject, and was printed at Breslau, in 1797.—As we have lately been informed, that a *new* edition of the book last alluded to is in the press, an English translation of it could not be printed together with the present work: but, if this volume should be favourably received, all the other works of Dr. STRUVE will be published in succession.—*W.*

experience

experience of the philosopher of Abdera. Yet these hours have likewise afforded me inexpressible pleasure, in the heart-felt remembrance of many delightful scenes, which can be gratifying only to a parent, when retiring from his study, to an innocent amusement with a chearful and healthy progeny. I flatter myself that this circumstance will give additional weight to my assertion, and tend to convince the world, that neither my rules or cautions are extravagant, nor that I bow to the shrine of prejudice, by granting an undue indulgence. Many an excellent plan has been rejected with scorn, merely because the proposed innovation formed too striking a contrast to the prevailing habits and maxims. By too rigorous an exaction of duty, virtue and health have been subject to similar disadvantages. The path ought to be fairly opened, before we can advance on it with a safe step. The conquest over a single prejudice, is an approximation to the simplicity of Nature, and inspires the victor with additional vigour and resolution.

C. A. STRUVE.

Görlitz, November, 1797.

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INTRODUCTORY LECTURES

TO

DR. STRUVE'S PRACTICAL ESSAY

ON THE

EDUCATION AND TREATMENT

OF

CHILDREN.

LECTURE FIRST.

An historical sketch of the manners and customs prevailing among different nations; hints and remarks on their physical character, as well as occasional observations on their moral state: together with an inquiry into the truth of the supposed degeneracy of the present age, when compared with the condition of our ancestors.

AMONG the various pursuits in which the reasoning powers of the human mind are engaged, that of investigating the gradual evolution of the physical and intellectual faculties of man is unquestionably one of the most dignified, perhaps the most important.

Whether we consider man as a moral or as a physical agent, we shall find him, in every country, and in every climate, endowed with such qualities and talents, as elevate him, in a general sense, far above all the lower creatures: it is, however, a remarkable circumstance, that the developement of his mental and physical nature requires a much greater number of years, together with the more complicated aid of art, than is necessary for the formation of the most perfect and long-lived animals. There are, indeed, many among the inferior creatures, which individually

excel man in the exercise of the senses, and which apparently attain to a greater age; but I venture to assert, that if our external faculties be appreciated as an aggregate of sentient powers, we not only surpass every animal hitherto discovered, but we possess the means of multiplying them by reciprocal improvements, in a degree which it is impossible to compute.

In these respects, we have every reason to contemplate with satisfaction the beneficent ordinations of Providence, which has placed man in so exalted and enviable a situation. But, when we take a more enlarged view of the condition of our infantile life, and compare our physical situation immediately, or soon after birth, with that of the lower animals, a more gloomy picture presents itself to the mind; for it cannot be denied, that an infant is in a more helpless and more wretched state than any other living creature. Hence I am induced to think with EPICTETUS, who very properly advised parents, when embracing a beloved child, always to remember "that it is a mortal being they idolize." The empire of desolation, indeed, extends chiefly to infancy, and old age; as it must be confessed that the aid of scientific knowledge is often equally insufficient in both; because many insuperable difficulties are, in those periods of life, opposed to the skill and judgment of the physician. For this reason, judicious parents ought not to consider

consider infants from the hour of their birth, as permanent property; since we are convinced, by comparative and dire experience, that it is more probable we shall lose them before they arrive at the age of adolescence, than that we shall enjoy the satisfaction of seeing them adults.

Cruel advice indeed! I hear every feeling mother exclaim: she objects to insinuations which may embitter the sweet pleasure of a maternal heart; a pleasure that arises from the purest source. I am sensible I deliver a charge of a painful nature; while I also feel the deep wound thus inflicted on the heart of a parent; but reason and prudence, the principal attributes of civilized man, enjoin him to fortify his mind against calamities, which frequently can neither be prevented, nor remedied by the wisest efforts. We ought therefore to prepare ourselves, in the more happy hours, to meet such misfortunes with a degree of firmness and philosophic resignation, sufficient to guard the mind against consequences, perhaps ultimately more fatal than the event which produced them. I have known parents who, after the loss of a favourite child—if I may be allowed the expression—revolted against the decrees of Providence, and had the additional misfortune to be deprived of their understanding; nay, I appeal to the experience of those who have an extensive circle of friends, whether they have not often heard of parents, whose grief

was so intense, and so unlimited in its duration, that in consequence of such a loss, they also paid the debt of Nature!

The victims of such extravagant indulgence, I apprehend, are more numerous than is commonly believed; but to obviate the charge to which I subject myself by these reflections, I beg leave to observe, that parental love and tenderness, when carried to excess, cease to be a virtue, and degenerate into a crime committed against ourselves and society; while those who have a just claim upon our existence, must also participate in the unhappy issue.

Although I by no means wish to insinuate, that the feelings of parents ought, on such occasions, to be suppressed; or that the peculiar pleasure they experience in beholding their beloved offspring ought to be checked, I shall nevertheless recommend the excellent advice of EPICTETUS; because I am convinced, that it is unreasonable to indulge in violent sorrow, and to make no efforts to controul the emotions and passions of a susceptible breast, when their influence, on both mind and body, may be attended with dangerous effects. Convinced of the stability of this principle, and actuated by the purest motives, I shall only remark, that *parental* love contemplates the *object* alone; but *prudent* love also regards the concomitant *danger*.

ON

On examining the records of history, we meet with many extraordinary facts, relative to the education of children;—facts which cannot now be reconciled with the uniform dictates of the human heart, nor are they sanctioned by the authority of reason.—Such was the unnatural law enacted by the great legislator Lycurgus, as we are informed by Plutarch, the historian: according to this law, *no* weakly children were suffered to live in the Spartan Republic. Fathers were not permitted to educate their offspring conformably to their own plan; for, as soon as a child was born, the father was obliged to carry it to the *Lesha*, a public place, where the elders of the different tribes were assembled. If, on examination, they found the child of a perfect form, lively and vigorous, they issued orders for its proper maintenance, and assigned to it one of the nine thousand portions of public wealth, which from that moment became hereditary property. If, on the contrary, the child unfortunately happened to be deformed, crippled, or weakly, the elders caused it to be thrown into the *Apothetes*, a pit sunk near mount *Taygetus*. This barbarous custom was adopted from the following plausible motives: first, because they imagined they should render an essential service to the Republic, by destroying such children as were not likely to defend her against the enemy, or to promote internal prosperity; secondly, it

was a prevailing maxim in Sparta, to remove objects of public pity and regret, or in other words, to shorten the life of a being, that in all probability could never be healthy, nor happy. With the same intention, all public midwives were obliged to bathe new-born infants in wine, in order to ascertain whether they were sufficiently vigorous to undergo this singular trial of their constitution. For the Spartans believed, that weakly children, or such as have a pre-disposition to epileptic and convulsive diseases, would not be able to withstand the powerful stimulus of wine, and would perish under its operation; while those whom Nature had provided with greater vigour, would thus be rendered more hardy and energetic.

However discordant the regulations that subsisted among the Spartans may appear, when analyzed by modern principles of ethics and good policy, it is remarkable, that they were approved of by the great ARISTOTLE, in his eighth book "on Politics." Nay, it is more surprizing, that similar customs still prevail among many barbarous nations of the present day, and frequently without any apparent motive or pretext. Thus we are informed by BARRERE, a French writer, that the savages of Guiana kill and bury their deformed children, because they do not conceive them entitled to live. According to CHARDIN, the Mingrelians practise the diabolical principle, that

that children who cannot be nurtured, and patients who cannot be cured, ought to be deprived of a life which is a burthen to themselves and others. If a woman of Kamtschatka be delivered of twins, one of them is without mercy smothered; because the natives are contented with one child: and the King of Otaheite is bound, from political reasons, to destroy all the children of his concubines. Such flagrant deviations from the human character deserve to be mentioned only for this reason, because they evince how, in different climates, and under different forms of government, man is apt to forsake the path assigned by Nature, when his intellectual faculties remain uncultivated. And with this intention I shall venture to cite another curious custom still prevalent among the Ostiak Kozaks. If we may credit the account of Mr. WEBER, a respectable traveller who has visited that nation, the Ostiak women, when delivered on their peregrinations in the severest winter, instantly bury the new-born infant under snow, where they leave him till he begins to cry. Upon this signal he is removed to the bosom of his mother; as it is imagined, that the alternations of heat and cold have a beneficial tendency to strengthen the child. After the lapse of four or five weeks, a fire is made in the midst of the hut, which the mother crosses three times, and this concludes the rites of child-bed: having performed that cere-

ceremony, she again joins her husband, who is at perfect liberty to receive her, together with the child, or to abandon both, according to his pleasure. We trust, however, for the sake of humanity, that the latter resolution is rarely, if ever adopted, even among savages.

To return from these extraordinary and unnatural customs, let us take a short view of the influence which soil and climate unquestionably produce on the moral and physical condition of mankind.

It deserves to be previously remarked, that every attempt at improving the soil or surface of a country, is likewise attended with certain changes, affecting the susceptibility of man for those impressions which take place in consequence of his being more or less exposed to external agents. Thus we have, by an industrious culture of the soil, rendered our climate less severe, and as it were, removed it farther from the frigid zone; we have, by mixing the productions of all climates, enriched our body as well as our mind with the peculiarities of southern nations; acquired their sensibility, lively imagination, and early understanding; but also, to a certain degree, their indolent and sensual habits. Nay, I venture to pronounce, that the insupportable degree of selfishness, so common in modern times, or that disgusting system of self-happiness, more or less originates from irregular and improper

per modes of living: hence that general propensity displayed by the plurality of the most sensible and ingenious, to appear more than what they really are, and to bestow on external objects that value which belongs to intrinsic merit, to virtue. True ambition is only so far laudable, as it requires no foreign aid.

I am, however, concerned to observe, that disinterested and independent actions begin to vanish from the page of history, as if they were destined for a more happy age. Serious employments have in a great measure been superseded by frivolous pursuits; the incessant desire of frequenting numerous and gay assemblies drowns every attempt, occasionally made, to indulge in solitary reflection, and to recover that tone of mind in which alone we can act consistently, and maintain with dignity the more or less important stations we hold in society. Whether such propensities ought to be checked, or cautiously regulated, in the rising generation, is a question not easily answered; for I much doubt whether it would be compatible with the present spirit of the times, to attempt an innovation which might render the votaries of pleasure liable to complaints arising from an irksome mode of life, and consequently make them dissatisfied with the world. The catalogue of suicides, indeed, alarmingly increases. I humbly conceive, *we* are not

to

to be removed from this vortex; but a more natural and consistent education of our *progeny*, will restore them to that happy state of our ancestors, who, together with manly virtues and dignified pursuits, enjoyed an enviable state of health.

Nature, no doubt, intended man to become the inhabitant of the whole globe: hence his constitution could not, like that of the lower animals, remain uniform in every region of the earth; and hence we may discover its modifications according to climate, aliment, habit, and education. All these exert their influence on the instinctive desires of man; and it is on account of this variety of circumstances, when he appears under forms so diversified, that it is sometimes difficult to comprehend, whether such deviations can exist in one and the same human species. But provident Nature in every climate, and in every situation, guides and directs him to the means of preserving his health, and rendering his life as comfortable and happy, as is consistent with his moral and physical condition. The inhabitants on the banks of the river Senegal, are for several months in the year exposed to a heat which is sufficient to boil spirit of wine; while those of Hudson's and David's Bays are under the influence of a degree of cold, which sometimes congeals alkohol, and even mercury; and yet,

yet, parental Nature has enabled them both, not only to live, but even to enjoy a tolerable state of health, in the most opposite climates.

THE limits allotted to this Lecture, will only permit us to take a cursory view of those remote nations, which exhibit a remarkable difference in their bodily structure, and habits of life*. I propose to elucidate the following account with occasional remarks on the respective manners, and physical character, of different nations; for by such comparative reflections, we may perhaps acquire some additional knowledge of the prevailing errors, or negative improvements, in modern education.

The *Greenlander* seldom attains the height of five feet; and the Esquimaux, his brother, who dwells farther to the north, is still shorter. But, as the

* In justice to Mr. HERDER, a respectable German writer, whose work, entitled, "*Outlines of a Philosophy of the History of Man,*" is now faithfully translated into English, by Mr. CHURCHILL, I must acknowledge my obligations to that excellent and animated observer of human nature: I am principally indebted to him, for the concise physiological account of the Greenlanders, Laplanders, Samoiedes, Tungooses, Yakouts, Yukagirians, Kalmuk Tartars, Mongolians, Hindoos and Greeks, as well as for a few reflections on the respective condition of the Negro and the Savage.

vital

vital power operates towards the exterior parts of the body, it has compensated in warm and solid muscular substance, what it could not bestow in aspiring height. His head, in proportion to his body, is large; his face broad and flat: for Nature produces beauty only, when acting with temperance, and in a mean betwixt extremes; she could not here round a soft oval; and still less allow the nose, that ornament of the face, to project. As the cheeks occupy the chief breadth of the visage, the mouth is small and round: the hair is stiff; for the fine penetrating juices necessary to form soft silky hair, are wanting: no mind beams from the eye. In like manner the shoulders grow broad, the limbs large, the body corpulent and sanguine; the hands and feet alone remain small and slender. As is the external form, so are the irritability and the economy of the fluids within. The blood circulates more slowly, the heart beats more languidly: hence the desire of the sexes, which rises to such a height with the increasing warmth of other countries, is here less violent. It awakens not till late; the unmarried live chastely; and the women almost require compulsion, to take upon them the troubles of a married life. They have but few children; whence they compare the amorous and prolific Europeans to dogs. In their connubial state, as in their general way of life, a calm sobriety, and an habitual stillness of the passions, prevail. Insensible of those irritations, which

a warmer

a warmer climate, and more volatile animal spirits produce, they live and die peaceable and patient; contented from indifference, and active only from necessity. The father educates his son to that apathy which he esteems the grand virtue and happiness of life; and the mother suckles her infant for a length of time, with all the profound, tenacious affection of animal maternity. What Nature has denied them in irritability and elasticity of fibre, she has given them in permanent indefatigable strength; and has clothed them with that warming obesity, that abundance of blood, which render their very breath suffocating hot, in close habitations.

The *Laplanders* inhabit a comparatively mild climate, and are a more gentle race of men. The size of the human figure increases; the flat rotundity of the visage diminishes; the cheeks are lengthened; the eyes are dark grey; the straight black hair becomes red, and the internal organization of the man, expands with his external frame, as the bud that blows beneath the beams of a more genial sun. The mountain Laplander grazes his rein-deer, which neither the Esquimaux nor Greenlander can do; and obtains from them food and raiment, coverings for his house and his bed, conveniencies and even superfluities; while the Greenlander is reduced to seek almost every thing from the sea. Thus man acquires an animal for his friend and servant; he learns arts, and a more

domestic

domestic mode of life. It inures his foot to the chace, and his arm to the guidance of the rein; it prepares his mind for the acquisition and enjoyment of permanent property; while at the same time it cherishes his love of liberty, and accustoms his ear to that timid watchfulness, which characterizes many nations in a similar condition. The Laplander listens as faithfully as his beast, and sets off at the slightest noise; he loves his way of life, and looks, like his rein-deer, to the summits of the mountains, to spy the returning sun: he talks to his beast and is understood by him; he is careful of him as his wealth, or as a member of his family. Thus, with the first tameable animal that Nature could bestow on this region, she gave uncivilized man a guide to a more human mode of life.

The *Samoiede* has the round, broad, flat visage, the straight black hair, the low sanguineous body of the northern form: his lips are more full, his nose broader and more prominent, but his beard is diminished. These features, however, we shall find progressively decreasing, along an immense tract of land to the eastward. Thus the Samoiedes are, as it were, the negroes of the north; and the great irritability of their nerves, the early puberty of the females, in the eleventh or twelfth year; nay, if the account be true, their black nipples, and some other circumstances, render them still more similar to the negroes, notwithstanding the coldness

coldness of their climate. Yet, in spite of their warm and delicate constitution, which they probably inherit as a national character, and which, it may be presumed, even the climate itself could not subdue, their form is on the whole that of the north.

The *Tungooses*, who dwell farther to the south, begin to have some resemblance to the Mongolian stem; from which, however, they are as different in race and language, as the Samoiedes and Ostiaks are from the Laplanders and Greenlanders. The bodies of the Tungooses are better shaped and more slender; their eyes small like those of the Mongolians; their lips thin; their hair softer; yet their faces retain the flat northern form. It is the same with the *Yakouts*, and *Yukagirians*, who appear to acquire the Tartarian form, as the Tungooses acquire the Mongolian; nay, this observation applies to the Tartarian race itself.

Near the Black and Caspian Seas, on Mounts Caucasus and Ural, consequently in the most temperate climate of the world, the Tartarian form is blended with more beauty. The body is slender and pliable; the head quits the heavy rotundity for a more elegant oval; the complexion is florid; the nose projects boldly, and is well shaped; the eye is lively; the hair dark brown; the step alert; the countenance pleasingly modest and timid. Thus, the nearer we come to the regions where Nature is most profuse of life, the more exquisite and

better proportioned is the organization of man. The more we proceed to the north again, or the farther into Kalmuk Tartary, so much more flat and barbarous we find the features, either after the northern or Kalmuk model. In this, however, much is to be attributed to the way of life of a people, its descent, and intermixture with others, as well as the nature of the country. The mountain Tartars preserve their features with more purity than those that dwell in the plains: hordes that reside near towns and villages, intermix, and soften down both their features and manners.

As there are many probabilities, that the first abode of the human species was on the Asiatic ridge of the earth, we might naturally expect to find the most beautiful race of men in that region. But how greatly should we be deceived in our expectation? The form of the Kalmuks and Mongolians is well known. With a middling stature, they have some remains of the flat visage, the thin beard and the brown complexion of the northern climate; but they are distinguishable by the inner angle of the eye being acute, fleshy, and inclined obliquely to the nose; by narrow, black, slightly arched eye-brows; a small, flat nose, very broad at the upper part; large, prominent ears; the legs and thighs bowed; and strong white teeth, which, together with the rest of the features, appear to characterize a beast of prey among men. Whence proceeds this form? Their bow

legs

legs originate from their way of life. From their childhood they creep along upon their legs, or cling to the back of a horse. Their lives are spent between sitting and riding; and to the only position that gives the human foot its straight fine form, that of walking, they are almost entire strangers. And may not more of their figure be traced to their way of life? Have not the prominent brutal ear that is ever listening; the small acute eye that perceives the least dust or smoke at the greatest distance; the white, projecting, bone-knawing tooth, the thick neck, and the backward reclining position of the head, become substantial features, and characteristics of their mode of living? If we add to this, what PALLAS asserts, that their children, even to the age of ten, frequently have deformed and bloated faces, and are of a cachochymic or sickly aspect, till, as they grow up, they become better shaped; if we consider that rain seldom falls on extensive tracts of their country, that they have little water, or at least none that is pure, so that from their infancy they scarcely know what it is to bathe; if we reflect on the salt lakes and marshes, the saline nature of the soil they inhabit, the alkaline savour of which they relish in their food, as well as in the deluges of tea, with which they daily enfeeble their digestive faculty; if, farther, we consider the elevation of that country, the thin air, dry winds, alkaline effluvia, and long winters spent in the smoke of

their huts, and with snow continually before their eyes; is it not probable, that their figure originated from these causes some thousands of years ago, when many of them perhaps operated still more forcibly, and thus insensibly became their hereditary nature? Nothing invigorates our bodies more, and contributes in a greater degree to their growth and firmness, than washing and bathing in water; particularly if to these be joined walking, running, wrestling, and other bodily exercises. Nothing has a greater tendency to debilitate them, than drinking warm liquors; and these they swallow in immoderate quantities, seasoned with corrugating alkaline salts. Hence, as PALLAS justly observes, the feeble and effeminate figures of the Mongolians and Burats, five or six of whom, with their utmost exertions, cannot do what can be executed by a single Russian; hence the extreme lightness of their bodies, with which, on their little horses, they seem to fly, or skim along the surface of the ground; hence, lastly, the diseased habit transmitted to their children. Even some of the neighbouring Tartar races are born with features of the Mongolian form, which disappear as they grow up: and this renders it more probable, that some of the causes dependent on the climate, are more or less ingrafted into the frame of the people, and rendered hereditary, by their descent and mode of life. When Russians or Tartars intermarry with the Mongolians, they

they produce handsome children, of delicate and well proportioned shapes, but resembling the Mongolian standard. Here also, in their organization, Nature remains true to herself; a race of Nomades, beneath this sky, on this ridge of the globe, and with such modes of living, must be like so many human vultures.

Embosomed in Alpine heights, like a hidden paradise, lies the kingdom of *Cashmire*. Its fertile and pleasant hills are surrounded by mountains ascending still higher, till the summits of the last, covered with eternal snow, are lost in the clouds. Here flow pellucid streams and rivulets; the earth is adorned with salubrious herbs and fruits; gardens and islands are clad in refreshing green; flocks and herbs are spread over one universal pasture: while no savage animal or venomous reptile annoys this Eden. These may, as BERNIER says, be properly named the mountains of innocence, which flow with milk and honey; and the race of men that inhabits them, is not unworthy of the place. The Cashmirians are allowed to be the most witty and ingenious people of India, equally capable of excelling in poetry and science, in arts and manufactures; the men are finely formed, and the women often models of beauty.

How happy might Hindostan have been, had not the hands of men combined to ravage this garden of Nature, and to depress the most inno-

cent of human beings, by superstition and tyranny!

The *Hindoos* are the most gentle race of mankind. They intentionally injure nothing that breathes; they respect every thing that has life, and subsist on the most innocent food, such as milk, rice, and the nutritious plants and fruits that their country affords. In shape, says a modern traveller, they are straight, slender, and elegant; their limbs are well proportioned; their fingers long, and endued with great accuracy of feeling; their countenances are open and benign; the features of the females display the most delicate lineaments; those of the males, manly tenderness. Their whole deportment is in the highest degree graceful and attractive. The legs and thighs, which in all the north-eastern countries are mis-shapen or shortened like those of apes, are here lengthened, and bear the stamp of germinating human beauty. Even the Mongolian form, when intermingled with this race, is lost in noble benignity. The original disposition of their mind is consonant to the frame of their body. So indeed is their manner of life, when considered free from the yoke of slavery and superstition. Temperance and quiet, gentle feelings, and peaceful meditation, are conspicuous in their labours and enjoyments, in their morals and mythology, in their arts, and even in their patience under the severest tyranny. Innocent lambs! why could not

Nature

Nature feed you careless and undisturbed on your native plains!

Lastly, the perfect human form found a site on the coast of the Mediterranean, where it was capable of uniting with the intellect, and displaying all the charms of terrestrial and celestial graces to the mind, as well as to the eye: this was *triple Greece*, in Asia and the Islands, in Greece proper, and on the shores extending to the west. Gentle zephyrs fanned the tree, gradually transplanted from the heights of Asia, and breathed life into every part. Time and circumstances assisted in refining its juices, and crowning it with that perfection which still excites universal admiration in the models of Grecian art and wisdom. Here were conceived and executed, figures which no admirer of Circassian beauty, no Indian or Cashmirian artist could have invented. The human form ascended Olympus, and clothed itself in divine beauty!

HAVING now given a short sketch of the principal nations of the earth, and their individual organization, together with their natural dispositions, it may not be uninteresting to mention a few others, to trace in a more especial manner their habits of early life, and thus, at least in some degree, to discover the connection between cause and effect, with respect to their physical character.

The Negro spends his life void of care, in a country which yields him food with unbounded liberality. He moves his slender body in the water, as if it had been formed for that element; he runs and climbs, as if each were his sport: and, not less strong and healthy than light and active, his peculiar constitution supports him against all the accidents and diseases of his climate, under which so many Europeans sink. What to him are the tormenting sensations of superior joys, for which he was not formed? The materials were not wanting; but Nature took him in hand, and formed of him what was most fit for his country, and the happiness of his life.—Either no Africa should have been created, or it was requisite that Negroes should be made to inhabit that country.

The wandering *Californian* is placed as it were on the border of the habitable world, in a country which geographers, with great injustice, have called fertile. He lives in the most wretched indigence; has in general neither roof nor clothing, sleeps almost every night in a different place, and often with the greatest difficulty escapes starvation. The women of that inhospitable climate require no artificial aid from the hands of midwives; and the only cradle of their children, is the shell of the turtle. Nevertheless, this apparently unhappy race of people continually sport, sing, and smile; have a vigorous constitution, and

and attain a considerable age. Diseases were unknown to them even by name, till in the year 1763 the small-pox, and other disorders, were introduced among them: previous to that period, the natives had no other phrase to express the word disease, than by saying, "He lies on the ground." The Californian endures pain with almost incredible fortitude; and awaits his dissolution with such resignation and indifference, as would not disgrace a philosopher.

The Savage, as he is called, prefers the active free life of Nature to every other consideration: surrounded with perils, his powers, his courage, his resolution, are awakened, and he is rewarded with health in the field, with independence in his hut, with respect and honour among his tribe. He neither wants, nor desires more: and what addition to his happiness could he derive from another state, with the advantages of which he is unacquainted, and to the inconveniencies of which he cannot submit? Let us read the various unadorned speeches of those whom we call Savages, and say, whether sound sense and natural justice be not conspicuous in them. The frame of man, too, in this state, is as much improved, though with a rude hand, and but little advantage, as it is capable of being improved in it: he is formed for a contented equanimity, and to welcome death with calmness, after the enjoyment of a life of permanent health.—The *Bedouin*

and

and *Abiponian* are both happy in their respective condition: but the former shudders at the thought of inhabiting a town, as the latter does at the idea of being interred in a church, when he dies; according to their peculiar feelings, it would be the same as if they were buried alive.

In Canada, Virginia, the Brazils, and other American provinces, children are generally laid naked on raw cotton, in hammocks or cradles covered with fur.—In the province of Peru, they are frequently placed in shallow pits dug in the earth, so as to allow them room sufficient to move their arms freely above ground, where a few clothes are fastened around the child, that it may receive no injury.—I will not decide whether this circumstance has not induced a late noted empiric, in this country, to try his experiments for the cure of diseases, with patients who were weak and credulous enough to submit their bodies, as it were, to be buried alive.

In some parts of North America, infants are generally laid on couches filled with the dust of worm-eaten timber: this simple contrivance answers the useful purpose of keeping them dry and cleanly, as the powdered wood absorbs all moisture. When they are able to move, the solicitous mother incites them to meet her by presenting the food appointed by Nature. Thus, it is almost inconceivable, that little Savages, at the tender age of a few months, especially in Africa,

Africa, should possess such strength and agility as to embrace the waist of the mother with their arms and legs, without the least fear; and imbibe the maternal gift while she is engaged in fatiguing pursuits. In that country, it is truly astonishing to see infants two months old creeping about, and others somewhat older, walking upon their hands and knees, almost as speedily as adults.—On the contrary, in our quarter of the globe, it is not uncommon to see boys several years old, nursed either by the breasts of an ill-advised mother, or with spoon meat on the lap of an effeminating nurse. Such was the habit of the proud philosopher PLOTINUS, who, at eight years of age, when returning from school, visited his favourite nurse, and greedily partook of his wonted repast. These absurdities, however, I am happy to observe, do not often appear in a country where mothers are equally esteemed for their good sense and native modesty.

Upon this occasion, I cannot suppress an idea which has repeatedly occurred to me, when reflecting on the remarkable difference of physical endowments, between man in a state of nature, and man in civilized life. Whence does it happen that the former possesses such decisive advantages over the latter? It appears to me, that in the primitive modes of living, the human species was more susceptible of that beneficent instinct which directs the animal, either to avoid or to inure him-

himself to the noxious influence of external causes, while it enables him to follow with more scrupulous accuracy the simple dictates of Nature. The refined European, on the contrary, is always solicitous to *improve* upon her, whose laws are as *immutable* as the seasons. He, indeed, often succeeds in sheltering himself against powers assailing him from without; but, as his physical condition is thus gradually impaired, he must experience the consequent unfavourable effects, on the united faculties of mind and body. To whatever quarter of the primitive world he carries his improvements, peace, health, and happiness seem to vanish. Gloomy prospects! but such they unfortunately are; and we have a conclusive instance of this melancholy truth in the now wretched Brazilians, who were formerly celebrated for their longevity, simplicity of manners, and domestic felicity. Since their conquest by the western usurpers, who introduced among them the education, the manners, and artificial habits of Europe, the happy contentment and longevity of the Brazilians were soon changed into a life of woe and disease; all their domestic comforts and happiness disappeared.—I wish I could persuade myself, that this shocking change were not founded on fact; as it involves the fate of millions of human beings, who are now reduced to misery and abject servility. But alas! we may learn from such an example, however mournful, that

most

most of our pretended improvements in civilized life, are only of *negative* value. I pronounce this sentence with a mixture of pain and regret; because it may on the one hand be considered invidious, and on the other, perhaps extravagant. Yet, convinced of the truth of my assertion, I shall in the sequel draw several useful inferences from its indirect application to the present state of society. And unless we resolve to abandon a few of our modern habits and prejudices, which are sanctioned by no other authority than that of time immemorial, I apprehend, that instead of advancing on the path of *true* improvement, the convulsed state of morals will gradually lead us to retrograde and baneful steps.

I shall conclude this Lecture with a few observations on the supposed degeneracy of the present age, when compared with the former.

Many persons, as well among the learned as the illiterate classes, have asserted that mankind every day become more reduced in size, and bodily strength. When we draw a parallel between the ancient patriarchs and the progenitors of the present race, the difference with respect to their energy, figure, and duration, or longevity, is indeed remarkable. For, even admitting that the historical and traditionary accounts we have obtained from sacred and profane writers, especially those relative to chronology, are a little exaggerated by translators and commentators; that the descrip-

descriptions given us of the divinities and heroes of the Greeks and Romans do not exactly correspond to their originals; and that the ancient Germans, whom TACITUS represents as men of a colossal stature, were no more than other hardy sons of Nature, viewed at a distance, when arrayed in their semi-barbarian dress, and national armour;—yet it appears from their coats of mail, their helmets, swords, and other implements of war, that they have certainly been more muscular, vigorous, and considerably taller than their descendants in the 18th century.

I have purposely chosen the Germans for this comparison, as western Europe, and even Britain, have in some measure been peopled by that nation. But it will be asked, 1st, how arose this relative debility and decrease of bodily energy in a whole people?—2d, how may it in future be most effectually remedied?—and, 3d, have we upon the whole gained or lost by this apparent degeneracy? These questions I shall endeavour briefly to answer.

The progressive culture of the human mind has unfortunately been accompanied with more than a proportionate increase of luxury, or, in other words, with an almost general effeminacy, especially in the higher walks of life. This change of manners, habits, laws, and customs, has farther been productive of effects, upon which I cannot in this place expatiate, as they chiefly relate to the animal

animal economy of man. But without descending to particular reflections, I appeal to the judgment of every observer, whether the prevailing system of dissipation among the fashionable class of men, is not one of the most powerful means of dissolving the moral ties of society?—and whether the calm indifference shewn to those libertines, in the higher circles, is not an indirect approbation of their conduct? Hence the increasing number of those who find it more convenient to live in a state of celibacy; hence also the very *early*, or very *late* marriages—two of the most opposite and pernicious extremes in society. The Romans enacted severe laws against those who did not enter at a certain age into the marriage state: the Greenlanders, on the contrary, blame the more enlightened Europeans, and bestow upon them very opprobrious epithets, because they marry at too early an age, and are blessed with a great number of children. Whether the principles of the corrupt Romans, or those of the placid Greenlanders, with respect to the conjugal state, are more rational and consistent with the welfare of nations, it is not very difficult to determine: and this consideration will, at the same time, lead us to the reply of the second and third problems.

In the temperate climates of Europe, there can be no doubt that early marriages, together with the prevailing habits of intemperance and luxury, have principally contributed to produce that diminutive

nutive size of the human species, which we now witness in the numerous instances of women, and effeminate men.

In order to prevent, or check, this growing evil, it has been imagined, that a *more hardy* education of infants, would restore those degenerating nations to their primitive mental and bodily vigour. There is much truth mingled with error in this hypothetical assumption. Were I called upon to deliver an explicit opinion on the subject, I should be induced to declare, that a proper method of educating youth is indeed a *necessary*, but by no means the *only* requisite to the attainment of the perfect growth, and progressive developement of children. The radical and principal evil must be traced to an earlier period of their existence—to their parents.

After reflecting on the remote, though probable causes of this degeneracy, it cannot be denied, that it chiefly arises from those early and unqualified marriages, against which the legislators of Greece had provided by positive laws. According to these, no young man or woman was permitted to approach the altar of Hymen until they had attained a certain age. In this public manner, the state deemed it necessary to decree, by supreme authority, what had often been, and still is, neglected by those who are the natural guardians of families and their progeny.

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As, however, the ill consequences thence arising in modern times, have not yet been of such magnitude as to demand the attention of the legislative power, it is incumbent on every rational inquirer, to point out the evil, and thus to pave the way towards its removal. In every department of national prosperity, this freedom of inquiry has ever been considered as an imprescriptible privilege of authors, and public teachers.

Much, indeed, may also be accomplished by a proper method of educating children, if this method be adapted to their individual temperament, bodily constitution, and other concomitant circumstances. But I shall find ample opportunities of shewing in my subsequent Lectures, that in general we have not uniformly followed the path of Nature; that we endeavour, as it were, to raise plants which are not destined to live in a hot-house; and that we must necessarily return to that simple and consistent plan of Nature from which, in many instances, we have greatly deviated.

A few words, then, will be sufficient to recapitulate, what we have actually gained, or lost, by our modern refinements in general. The lower orders of the people, especially in large towns, appear to have acquired immoral habits and relaxed principles, instead of their ancient simplicity of manners, and unshaken integrity;—the middle ranks of society are perhaps the greatest gainers, as they are better informed, and have attained more

skill in such pursuits as depend upon the combined agency of mental and physical talent;—lastly, the higher ranks have become unquestionably more enlightened, with respect to their *true* interest; but I cannot repress the observation, that they have also become subject to hereditary diseases unknown to their ancestors; and that the acquisition of mental powers and abilities appears to be in no just proportion to the obvious decrease of physical energy. In short, our attainments in ethics are more extensive, perhaps more systematic; but I hope to be forgiven, when I assert, that the present age appears to labour under a certain mental and corporeal imbecility, scarcely definable by words, but which is evident in that fickle conduct, in that peculiar want of resolution and mental vigour, which marks the actions of the most cultivated minds, and of which we rarely find instances among our less enlightened, but more consistent and determined forefathers.

These or similar ideas, have probably suggested the following reflections to the pathetic Mr. HERDER, whose work has already been mentioned:—"The whole career of human life is a series of changes; its different periods are histories of transformation, and the whole species is a perpetual metamorphosis. Flowers droop and wither, while others sprout and bud; and the vast tree of human nature, at once, bears all the seasons on its head.

"A man

"A man of eighty is supposed to have renovated his whole body at least four and twenty times, if the insensible perspiration be taken as the basis of this computation: who then can trace the variations of matter, and its forms, through all the race of mankind upon earth, amid all the causes of change? There is not one point on our complicated globe, not one wave in the current of time, which resembles another.

"The history of man is ultimately the theatre of vicissitudes, which He alone can review who animates all these figures. He builds and destroys, improves and modifies forms, while He changes the world around him. The wanderer upon earth, the transient ephemeron, can only admire the wonders of this great Agent, in a narrow circle: he enjoys the form that belongs to him in the general choir, adores, and disappears. "*I too was in Arcadia*," should therefore be the epitaph of all living beings, in the ever-changing, ever-renovating creation."

LECTURE SECOND.

On the errors and prejudices prevailing in the treatment of Children, at an early age; on the dangers attending the improper application of medical remedies in general; hints towards radical, but gradual improvements; and satisfactory proofs that we are not yet in the possession of a system, founded on scientific principles, supported by experimental facts, and consistent with the moral and physical constitution of man.

AS the subject of the present Lecture will chiefly relate to a more rational method of managing the physical education of children, I shall commence it with a few *general reflections* on the errors and prejudices prevailing in the treatment of them, especially at an early age.

To avoid, and to correct errors, it is only necessary to be acquainted with their pernicious tendency, and to break the slavish fetters of prejudice and custom.

Those happy few who think for themselves, and study the effects of natural causes, will not be easily misled by laws and rules, which are neither warranted by reason nor experience. And though it cannot be denied, that common nurses and servants are ill qualified to conduct this important

portant office, yet fathers are too much accustomed to consider the nursery as the most irksome room in the house; so that children frequently are in a manner orphans, while their parents are alive. Hence we should not be surprized at the most incongruous methods adopted in the management of infants. Nay, I will venture to assert, that until fathers condescend to take an active share in that department which relates to the physical education of their offspring, and co-operate with the views of a solicitous mother, our improvements will neither be radical, nor permanent. That many erroneous notions actually prevail in this branch of family-affairs, will be admitted by every ingenuous mind: the modern system of bracing children by the cold-bath, of suffering them to go with bare legs and thin dresses in winter, together with a variety of improper habits, will in the sequel afford ample proofs of this assertion; especially as upon these occasions the individual temperament, age, and other circumstances attending the situation of the child, are little, if at all, consulted.

But I cannot, in justice to helpless infancy, forbear to point out a few circumstances, which appear to me of peculiar importance: such, for instance, is the almost general custom of neglecting the constitution of infants, till they become afflicted with pain or disease. For, though medical assistance should be occasionally resorted to, by

families either more wealthy or circumspect than their neighbours, yet I am convinced, from painful experience, that it is too frequently done at a very late period, and chiefly with a view of satisfying clamorous relations, or relieving the anxiety of distressed parents; because the prospect of rescuing the little sufferer from the jaws of death is then nearly vanished.—How can it be rationally expected, that a physician, called in upon the spur of the moment, should be able to ascertain the seat and causes of the disease? On such occasions, indeed, I would prefer the account of a judicious nurse, to any examination hastily instituted by the most learned and attentive practitioner, during a conversation seldom exceeding ten minutes. Is it not a most melancholy instance of human indifference, that we often devote a considerable portion of our time to pursuits of an inferior kind, such as rearing trees and shrubs, or even flowers and grasses, while we neglect the most dignified of human offices, namely, that of educating our children upon a plan supported by the dictates of reason. And this unpardonable neglect begins from the hour of a child's birth. It is at that momentous period, when the foundation is frequently laid, of a feeble and sickly life. Hence I shall only observe, that many children have fallen victims to general convulsions, the cause of which was unknown: but, after inquiring into a few circumstances of their early days, I have generally found,

found, that the *meconium* had not been properly discharged, or that some other essential points had been entirely overlooked by those to whom the first treatment of the child was entrusted. Nevertheless, kind Nature often relieves the suffering infant, by a spontaneous effort.

Before the child is scarcely two months old, I have often had the mortification to observe, that over-wise nurses begin to try experiments on its legs. As the bones, however, have not yet acquired sufficient firmness, it may be easily conceived what injury must be done to the formation and growth of the child, by attempts equally preposterous and detrimental.

No less absurd is the practice of confining infants for several hours in walking-machines, as well as the prevailing method of carrying them on *one* arm. Both the nurse and the child often experience the bad effects of this habit; the former may become side-bent or crooked, while the child is unnaturally compressed, so that its joints and bones cannot unfold their organic powers. I shall upon a future occasion suggest a more rational, and proper method, of carrying infants, than is at present uniformly practised.

There are other very injudicious customs, which deserve severe animadversion. I allude to the strange habit of taking very young children to places of public worship or amusement; sending them to schools, with the view of

making them sedate, or confining them, especially during cold weather, in hot and suffocating rooms. By such destructive means, the foundation is laid for that plethoric habit, which disposes them either to apoplectic or erup ive disorders, to convulsions, palsy, epilepsy, in short, to that very general irritability of the system which is the forerunner of consumption. If these effects do not always follow, we ought not to be less attentive to the causes which may imperceptibly produce them; for it is a remark which occurs to every reflecting observer, that the present generation displays an unaccountable debility, and incapacity to withstand the sensible changes of the weather, as well as the influence of the seasons. It seems, from the general conduct of nurses, almost doubtful, that fresh air, in whatever temperature, is the true balm of life.

The digestive organ of children is likewise subject to very furious assaults: their tender stomachs ought not to be measured by those of adults. And in this respect, neither the quantity, nor the quality of nutriment, is properly attended to:—tea, coffee, beer, and wine, all are more or less hurtful, and here generally misapplied. Nor are we sufficiently studious to contrive such exercise as is adapted to the age, strength, temperament, and inclination of the child. Farther, many parents feel an invincible desire to improve the infantile mind, at an age when

when such attempts cannot be realized, without producing consequences felt by the child, during the whole of its life;—they are anxious to exhibit the progress made by forward children in reading, in history, geography, arithmetic, &c.; not considering that every premature exertion is attended with the most dangerous effects. Thus, the access of the fluids towards the head is promoted; preternatural irritability of the whole nervous system, and a tendency to spasmodic strictures, are thereby occasioned; digestion is likewise impaired, or rendered weak and inactive for life; and lastly, early consumption, or dropsy of the head, terminates the calamitous scene.—"The ancient treatment of children," I have observed in the Introduction to my Lectures on Diet, &c. "being consecrated by time, must not be rudely and precipitately rejected; but old customs may be changed, by prudent and moderate management; and thus we may proceed from one step to another, in extending the boundaries of truth and reason. A *gradual* transition, from a defective to a better state of things, is commonly the most permanent. Let us first oppose the most dangerous notions and prejudices: the conquest of a *single* prejudice, if completely effected, is a triumph of no little moment, inasmuch as it will shake the foundation of many others, more or less connected with it."

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There are, however, multitudes who smile with apparent indifference, at every new proposal, which is not suggested by their own mind; but such persons do not reflect, that no useful plan was ever executed, without having previously been started as a proposal; and that no good idea, however repugnant at first, has ever been wholly without its use, in the general mass of knowledge. Should we succeed in improving the corporeal management of infants, we may reasonably expect that their minds will also be improved. Yet, in this important attempt, more real good may be effected by deliberate action, and even occasional omission, than by continual, and officious interference.

To confirm an observation, which to some is perhaps equally novel and paradoxical, I shall direct my inquiry into the dangers to which helpless infancy is exposed, when afflicted with disease.

It is a melancholy, but indisputable truth, that of all patients, children are most neglected. Medical aid, I have before observed, is generally called in at too late a period; as the child is unable to give a distinct account of the disease, or to point out the seat and probable cause of the complaint. Hence it may be explained, that our progress in the knowledge and cure of infantile disorders, has been remarkably slow, and is not likely

likely to advance, unless we shall be aided by mothers, and guardians of families, instead of being thwarted by inveterate prejudices and customs.

When will the period arrive, that children shall be no longer entrusted to ignorant and superstitious nurses?—It requires no great sagacity to discover the difference between infants educated under the eye of a sensible mother, and those reared by mercenary agents. But as I propose to treat, in this Lecture, chiefly of the dangers attending the administration of medicines to young constitutions, I shall be under the necessity of dividing that subject into particular heads.

Previously to this division, I cannot pass over in silence, what has often appeared to me peculiarly striking in the treatment of diseased children; namely, that most persons are either too anxious, and officious, in removing their complaints, or they shew an almost culpable indifference; believing that the medical art, on such occasions, affords no relief. Others again are excessively partial to domestic remedies, or family-prescriptions, which, like the amulets of barbarous memory, are called in aid upon the slightest indisposition. They conceive it to be of little consequence, to attend to the particular constitution or temperament of the child, provided the remedy has been formerly found of service to others.

others. If, however, medical advice should be asked, it is more with a view to procure instant alleviation of pain, than to await with patience the operation of the medicines. That domestic remedies may, in certain cases, be productive of good effects, cannot be denied; but I hope it is unnecessary to prove that they are *not* altogether harmless; or, if indiscriminately and improperly employed, that they must be attended with dangerous effects. For there is no substance in Nature, even among the different kinds of food and drink, which is so perfectly neutral or ineffectual, when introduced into the human body, that it is not more wholesome or pernicious at one time than at another. Nor is it possible to conceive the existence of any material substance, without attributing to it properties and effects, more or less consonant to the human body. Hence the flagrant absurdity of Nostrums advertised for the cure of infantile disorders; a speculation peculiar to the present age:—our ancestors, however credulous and superstitious with respect to the influence of medicines on adults, did not encourage that species of fraud, which has now been extended to the nursery, as well as to public and private infirmaries.

In order to explain the dangers attending such injudicious conduct, I shall divide the different medical remedies into two classes: first, such as are too frequently and incautiously employed; and,

and, secondly, those which are considered as dangerous by the vulgar, but nevertheless deserve to be more generally introduced, when administered with due precaution. Of the former class are *purgatives*, *sudorifics*, *composing draughts* or *pills*, *expectorants*, and *tonics* or *bracing medicines*.—Of the latter, are *emetics*, *clysters*, *bathing*, *blisters*, and *chirurgical operations*.

Although Nature appears to have pointed out purgatives as useful remedies, they are liable to much abuse. In febrile attacks, coughs, worms, diseases of the eyes, &c. they are in general resorted to, without considering that the doses, as well as the propriety of taking them, ought to be maturely weighed, and accurately determined. A frequent repetition of laxatives obviously debilitates the body, and the oftener we attempt to evacuate, or, as it is pre-eminently called, to *cleanse* the bowels, the more certainly we lay the basis of a farther accumulation of impurities; and by removing a single symptom of a diseased habit, the body is rendered liable to continual morbid debility; it becomes extremely irritable, and susceptible of new affections, on the slightest occasion. Thus weakly children have often been treated with, and, as it were, fed upon medicines, till at length their constitution resembles a spoiled time-piece, which is of greater service to the artist than to its possessor.—The necessary consequences of frequent and violent cathartics,

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are translations of morbid matter to the internal parts, especially towards the breast and abdomen: hence we find, that so many children die of dropsical complaints, or, if they survive the age of puberty, they fall a sacrifice to consumption; because convulsions, spasms, and epileptic fits, had been contracted in their infancy, from the administration of laxatives. It is needless to increase the catalogue of these maladies; as prudent parents must be convinced, that the exhibition of a medicine is a very serious and precarious attempt.—To lay down particular rules and directions, in what cases aperient remedies may be proper and necessary, would lead me too far from the outline of Introductory Lectures: these subjects must be discussed at a future opportunity.

Sudorifics, are either such as promote the insensible perspiration, or occasion a perceptible exudation by the pores: the former cannot easily do mischief, but the latter, if injudiciously administered, may be attended with pernicious effects. This distinction, however, is not very material; as the effect of all diaphoretic remedies is different only in its degree, and this degree depends chiefly on the constitution of the patient; his natural disposition for such evacuation, his conduct during the operation, and other concomitant circumstances. It is therefore an erroneous notion, that diaphoretics, or sweating remedies,

remedies, are always safe in eruptive diseases of children, or in rheumatic and catarrhal attacks. Dr. STRUVE asserts, that he has observed the most obstinate swellings, and even dropsy, to arise from that hurtful practice; and as frequent and profuse perspiration debilitates the solids, it cannot fail to produce a strong tendency to pulmonary consumption, and hectic fevers. Hence it is particularly injurious in the following cases: 1. When the first passages are loaded with impurities; 2. In general relaxation of the body; 3. In plethoric children, or such as are very full of blood and humours; 4. In all diseases previous to what is called the crisis or coction of the fluids; and 5. If there is any other species of action, or evacuation from the body, taking place at the same time.

Composing draughts, powders, or pills, resemble in some degree the sharp and dangerous instruments of the mechanic, which can be safely employed only by the master.—Want of sleep, and loud complaints, may indeed often induce parents and nurses to have recourse to anodynes, paregoric elixirs, and other opiates; but these expedients are the more objectionable, as they frequently become habitual; and though they should regularly cure one symptom of diseased action in the body, that of restlessness and pain, yet it is not in the nature of things, that they could uniformly effect a radical cure of the disease. On the contrary,

trary, they in general stupify the heads of children, produce great relaxation and preternatural irritability, a sickly habit, and at length total imbecility, both of mind and body. Let us therefore keep a watchful eye over indolent and unprincipled nurses, who perhaps often poison our children with narcotics and soporifics, merely to indulge their own convenience.

Expectorants, or pectoral remedies, are usually administered with the view of relieving cough, and procuring an easy discharge of mucus: but, as children have not sufficient muscular strength to promote the evacuation of matter from the vessels of the breast, it will be readily conceived, that the numberless preparations of sweet and oily substances given to them with that intention, must load their tender stomachs, and occasion infinite harm. Besides, it is excessively absurd to meddle with such remedies, when it is certain that cough, and consequent stricture of the chest, may arise from a great variety of causes. Of these, I shall enumerate only the principal; namely, an inflammatory state of the organs of respiration; spasms in the exhalent orifices of the arteries; too great an acrimony, or viscidity, of the particles to be evacuated; and an accumulation of peccant humours in the lungs and windpipe, together with the want of strength in the patient to discharge them by expectoration. How, then, can it be reasonably

ably expected, that in such a variety of causes the same remedies should answer an uniform purpose? And yet all cough-medicines are given to children with a design to resolve and attenuate thick mucus or phlegm. It would be needless to refute the prevailing popular error, that such medicines are calculated to promote the expectoration of stagnating matter, or actually to dissolve viscid mucus. Their operation consists chiefly in exciting the activity of the lymphatic system; and hence, they may be said to dilute incrassated humours. The consequence of such dilution, however, is, that by this stimulating process the secretion of matter is necessarily increased: and as children are not vigorous enough to expectorate, thence arises wheezing and rattling of the breast; the expansion of the lungs is rendered progressively more difficult; respiration is impeded; and, at length, suffocation terminates the scene. Besides, pectoral remedies, in the least dangerous cases, if long continued, always weaken the stomach, and thus prolong the cough, which is ultimately attended with a chronic inflammation of the lungs.—Such are the effects of ignorance and delusion.

Tonics, or strengthening remedies, are often given with an intention to support the sinking vital power, or to brace the whole system. In the opinion of those who are unacquainted with the laws of the animal economy, and the nature

of diseases, these medicines appear to be of inestimable value: yet their virtues and effects are extremely precarious. There is indeed a great difference between direct and indirect debility, or in other words, between true and apparent weakness; a distinction which is not always manifest, even to the most experienced physician. For extreme reduction of strength, when the expiring patient seems to have arrived at the verge of the grave, may be the consequence of a morbid cause, but not of the disease itself.—How often does it happen that a single emetic, or bleeding, at once raises the pulse, relieves the stricture of the breast, enlivens the faint, languid eyes, and diffuses new vigour over the supposed victim of death. From any such remedies, the non-professional spectator would predict, or at least apprehend, certain dissolution.

Farther, the cause of general debility is frequently found in the accumulation of blood, in obstructions and pituitous stagnations of the abdomen. In these instances, it would be extremely hazardous to stimulate the succumbing patient with wine, strong broths, or any animal food; which is a common practice. Nay, it is a notorious fact, that heating and exciting substances are often taken from empirics of every description, while cooling and moderating remedies ought to have been prescribed. It is therefore an obnoxious error, to hasten the recovery of a patient by

bracing

bracing means; and to believe that every thing depends on the return of his appetite for eating. Tender mothers likewise labour under a great mistake, when they imagine that there can be no danger in the disease, as long as the child takes its food. Conformably to this erroneous notion, the infant is loaded with aliment, though its stomach be relaxed and vitiated; so that additional food cannot fail to increase the cause of weakness, and consequently also the disease. Nay, over-wise nurses go a step farther, and literally stuff the child every time it begins to cry; without attempting to distinguish whether the cries arise from hunger or pain. I must, on this occasion, with reluctance observe, that mothers are guilty of similar imprudence, when they place a diseased infant more frequently than Nature requires, to their breasts;—and hence appears to have originated the absurd expression, "*to still a child.*" But, if mothers were informed that they contribute to the destruction of the child, while endeavouring to promote its welfare, they would not load it with a superfluity of milk; which vitiates the stomach, produces acidity, and by remaining in the mouth of the infant, even *there* becomes sour and acrimonious, generates aphthous eruptions, and disposes the little patient to habitual flatulency.

On the whole, it cannot be disputed that the diet and regimen of children are shamefully

neglected; because mankind almost uniformly place too implicit a reliance on medicinal substances; and, while searching for distant means of relief, are apt to slight those which kind Nature has placed within their reach. Thus, the source of retarded recovery, or premature death, arises principally from an improper management during the first attack of the disease; because the dietetic treatment unfortunately was in direct opposition to the medicines prescribed.

Having now treated of such remedies as are most generally subject to abuse, let us also take a concise view of those, the application of which, is often dreaded and procrastinated in infantile disorders; as it is erroneously imagined, that they manifest too powerful an effect on young constitutions, and are apt to injure them.

Among all the remedies which mankind have adopted in consequence of the hints given them by Nature, none appear to be more beneficial, and conformable to the constitution of children, than *emetics*. It is, therefore, extremely imprudent to substitute laxatives, merely because these are erroneously considered as less dangerous and oppressive to the child. On the contrary, it cannot be disputed that purgatives are attended with much greater relaxation of the stomach and bowels, especially in young children; and it is a certain fact, that a single emetic has often relieved the most distressing symptoms, prevented suffo-

suffocation, and produced the most desirable effects.

There are, however, a variety of cases, in which the administration of emetics would be equally improper for children and adults: for instance, 1. In general plethora, or a determination of blood towards the head, breast, stomach, and particularly the liver—which is but rarely the case in infancy; 2. In actual inflammation of the intestines; 3. In great debility of the system; 4. In ruptures, prolapses, and other deformities of the body; lastly, 5. In obstructions of the bowels, and a few other cases, chiefly relative to adults.

As it is to be presumed that parents will not, without proper medical advice, venture upon the administration of emetics, it would be superfluous to state those cases where they are of the greatest service: my principal aim is to shew, that upon the whole, vomiting is less dangerous and detrimental, to the young as well as to the delicate, than purging. This assertion will not be discredited, when it is considered that the former inverts the motion of the stomach, suspends the equilibrium of the muscular fibres of that organ, *only during its operation*, and serves in a manner as an useful exercise to the whole body; while the latter, or laxatives, act by their mechanical stimulus on the stomach and intestines; increase the access of the fluids to those parts, even be-

yond the alimentary canal; diminish the mass of the circulating blood; and thus, at one and the same time, affect the liver, the pancreas, and other viscera, which partake of the subsequent debility.

Clysters have often, though with injustice, been held, as it were, in contempt and disgust. Their use, however, is great, and I would almost say, boundless. A remedy in itself so harmless, and calculated to afford almost instantaneous relief, deserves to be better understood, and ought to become more general. Many powerful objections have hitherto prevailed against *lavemens*, which are now effectually removed, since the late invention by Mr. SAVIGNY, an ingenious artist, of King-street, Covent-garden.—It gives me pleasure to add, that the apparatus is perfectly well adapted for the purpose, without requiring any assistance; and that it also promises to be of great service, in the treatment of children.

To enforce the importance of this remedy, I shall observe, that Nature has certainly not appointed the stomach to be the field of battle for medicinal, but for alimentary substances; that she has provided the abdomen with an intestine of uncommon firmness and elasticity, and that absorption is carried on in the bowels, as well as the stomach.

Bathing has been likewise too little, and sometimes improperly, employed in the nursery. Like

emetics

emetics and clysters, it has been dreaded only, because its properties have not been sufficiently understood. It would be unnecessary to prove, in this place, its salutary and unparalleled effects, in cutaneous eruptions of children, in scrophula or the king's evil, the rickets, and even consumption, which destroys about one-third of the number of those who die in the metropolis. It has been very generally, though without foundation, believed, that *cold* baths only, are bracing or strengthening, and that warm, as well as hot baths, produce a contrary effect. This opinion requires but a short refutation.

If the temperature of the warm bath exceed the heat of the human body, or 98° of Fahrenheit's thermometer, it is then no longer a *warm*, but a *hot* bath; and as such, ought to be used only in certain diseases, by the direction and advice of a medical practitioner: if, however, the bath be prepared at a temperature varying, according to circumstances, from the 80th to the 85th or even 96th degree, it then forms a lukewarm or tepid bath. This remedy is truly valuable, particularly to children born of weak and enervated parents; inasmuch as it relaxes the rigid fibres, relieves the spasmodic stricture of the cutaneous vessels, resolves the tough pituitous humours, which clog the pores of the skin, promotes the discharge of noxious perspirable matter, and imparts tone and vigour to all the

functions of the body. It is therefore much to be regretted, that so powerful and excellent a mean of restoring health and energy, cannot be more easily resorted to in domestic economy.

Of *Blisters*, I shall say but little. For children, I should give the preference to sinapisms, or plasters made of mustard-seed, horse-radish, and the like, to those prepared of the Spanish fly. The former are attended with the additional advantages, that they sooner affect the skin, and do not act on the fluids with such violence as the latter. They are excellent, and generally safe remedies; the temporary pain they occasion, is in no proportion to their good effects; and if the blister, raised on the surface of the body, be opened with precaution, so that the epidermis or scarf-skin is not lacerated, the superficial wound heals in a very short time. Hence parents ought not to object to their application, especially as they are well calculated to relieve pain arising from internal inflammation; to dislodge catarrhal and rheumatic humours from the parts more essential to life; to discharge them by the nearest extremities, and to excite the indolent powers of the system in general. Good mothers require only to be informed of such advantages, and they will chearfully co-operate with the views of the physician, instead of prejudicing the helpless child against the application of means so powerful and anodyne. By making this petty sacrifice, they

they often would save their children much greater, and more durable pain.

Lastly, *Chirurgical Operations* are generally considered by parents as unnecessary tortures to the child. It is an almost unpardonable weakness, to suffer children to languish, and sometimes even to die, rather than submit for a few minutes to the knife of the surgeon. For pain certainly is less afflictive to children than adults; because the former cannot reflect upon its consequences, and the remembrance of their sufferings is so faint, that the whole is generally forgotten with the departure of the operator.

I hope I have not exceeded the limits of patience, in exposing prejudices, which, if not checked in time, may prove extremely detrimental to the future health, and the longevity of children. If the hints and cautions here suggested, be duly considered, it will be found that they are not taken from fancy, but derived from experience and observation.—There is another mischievous practice, which deserves severe censure.—Nurses and unthinking mothers often imagine they do service to the child, when they threaten it with the appearance of what is vulgarly styled the *Doctor*, who shall be called to perform an operation, or to punish the little offender with bitter medicines. In this absurd manner, the young mind is often prejudiced against medical assistance, merely because patience and prudence

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were wanting, to suggest more rational means of appeasing a fretful temper. If, therefore, proper measures were adopted, at the age of adolescence, to impress young persons entering the world, with a due sense of the consequences arising from an indiscriminate use of quack and other patent-medicines, more permanent good would thence result to society, than by all the endeavours to persuade children, that medicinal aid is intended only as a punishment for their refractory behaviour.

Great precaution, however, is required in contending against prejudices, so general and inveterate: one step too forward would deprive us of all confidence, and frustrate the most benevolent design. Power and severity cannot accomplish, what reflection and rational conviction will always perform; because mankind evince the greatest reluctance to comply with laws and regulations, the utility of which is not manifest. Hence, to extirpate those noxious weeds of society, the public and private empirics, I presume to suggest the following, as the most effectual, perhaps the only method:

Let us first convince the multitude, that there is no such thing in Nature, as a medicine which either cures the same disease in *all* patients, or serves as a preventive for *all* diseases. Yet, the most scientific demonstration will be of little, if any service, to banish quackery, if it be not aided by the attractive power of example. It would,

would, therefore, be the first step towards its extirpation, if the higher ranks would dutifully support the efforts of well-meaning individuals. I will not decide, whether they would not ultimately derive equal benefit and satisfaction, from such co-operation. For, how can it be expected that those whom they are obliged to employ in domestic affairs, will assist in opposing hurtful prejudices, if they themselves are not sufficiently instructed, respecting the most common phenomena of Nature?—But there is a more important point.

If every clergyman or curate—and who is better qualified to be employed in the services of humanity?—were to bestow a small portion of his time in inquiring, not only of what disorder the person died, who is to be entered in the bills of mortality, but likewise, whether he had employed empirics, and taken any patent or other medicines made up for sale—not unlike those of the Veterinary Surgeons—I am convinced, that such information, if laid before the public, would be attended with the best effects. Besides, this scheme would be productive of the following advantages: 1. That the relatives of the deceased would learn, from clerical authority, what distemper has deprived them of a friend; 2. That it would excite more attention to the nature of epidemics, especially those connected with the sea-

seasons; 3. That we may also learn to appreciate, with more scrupulous accuracy, the operation of medicines in general; and 4. That it would serve as an effectual check, on every species of domestic and foreign quackery.

Although I do not wish to insinuate too many novel proposals, yet I think it would answer the most desirable purpose, if an annual *memorandum* were annexed to the bills of mortality, stating the exact and attested number of those who have fallen victims to the most celebrated Nostrums advertised in newspapers. Such a regulation would be perfectly consistent with justice; as we are now obliged to pay for a considerable part of the daily prints, in which we are pompously informed of their wonderful effects.

Perhaps some apology may be necessary for trespassing upon the rugged path of empiricism; but I can speak positively from the experience of many unfortunate individuals, who have either fallen victims to fatal credulity and delusion, or whose health has suffered irreparable injury: hence, I claim indulgence for those invectives and demonstrations, which are directed against so baneful a practice.

If the public were in possession of a system of education, founded on just principles, such mistaken notions and glaring impositions could not prevail. But how, it will be asked, can this desirable

sirable object be effected? It is doubtful, whether the example of the more enlightened would *alone* be sufficient: it appears to me indispensibly requisite, that youth of both sexes, in public and private schools, should be made acquainted with the constitution of the human body: they should be instructed in the elementary knowledge of the animal economy, particularly with respect to those parts of the frame, which are most vulnerable, and essential to life. There can be no doubt, that the moral and physical attributes of human nature are inseparable; so that the cultivation of the one, without the other, must frequently lead to paradoxical and inconsistent actions. Nothing, indeed, is more common, than that propensity which the most judicious persons display in search of *general* rules, for regulating the complicated art of education. Had the great Author of Nature thought proper to form all his creatures upon the same plan, and to give each of them an equal portion of mental and bodily capacities, we might then reasonably expect to establish rules and maxims, applicable to every individual. Such uniformity, however, does not exist: hence, the necessity of attending to the peculiarities of constitution, climate, season, and many other particulars, before we can venture to reduce any principles to general practice. In this manner only, experimental facts will

will become truly valuable, and useful—and the important office of educating children, will receive every day new accessions and practical improvements.

LECTURE THIRD.

Strictures on several modern systems of education, especially that of ROUSSEAU; *a cursory review of their merits and defects, exemplified by a variety of striking instances: an abstract of Professor* HUFELAND'S *opinions relative to the food and drink, sleep and cries, of children.*

IN the present Lecture, I propose to examine several *modern systems of education*, especially that of the Philosopher of Geneva, whose *Emilius* has obtained a higher degree of credit and authority, than any production of a similar kind. Nor is it at all surprizing, that this work has almost uniformly been received with the loudest approbation; as it is not only the most complete, and systematic treatise on the subject, but likewise contains the most exalted ideas, which are, as it were, derived from the very bosom of Nature.

The works of MILTON, LOCKE, ADDISON, and other English writers, though containing many valuable observations relative to the physical education of youth, do not afford us any connected series of rules, by which so important an office in society may be regulated, in its different stages. The later writers of this country, I shall have occasion to mention towards the conclu-

conclusion of the Lecture.—I was induced to bestow a principal share of attention to the system of ROUSSEAU, partly from feeling the want of a *methodical essay* on this interesting theme, which appears to have hitherto been discussed only in fragments, and partly from the following criticism I found in a late publication, which is but little known.

" ROUSSEAU's work is replete with excellent maxims," says Mr. NORTHMORE, " as far as the *physical treatment of infancy* is concerned. Visionary as his general system may be, in this branch of it he may be followed with the happiest consequences; nor does he yield to any of his competitors, in an accurate knowledge of human nature, in its earliest stages. His prevailing foible is an attempt at brilliancy, and novelty of thought, to the prejudice of sober and useful discussion: but, through the greater part of his introductory books, he abounds in real information, and sacrifices the love of singularity to the pursuit of valuable truths. I have occasionally met with persons who have been so far dazzled by genius tinctured with singularity, as to adopt the ideas of ROUSSEAU, in their most visionary extent, and even to snatch the prize of eccentricity from the grasp of so formidable a rival.

" Now, though I have freely acknowledged, that the system of this ingenious philosopher, in many

many respects, merits commendation, and if pursued in some of its branches, will probably be attended with beneficial effects; yet it is interspersed with such absurdities, as will cause a smile in the countenances of the judicious."

I cordially subscribe to these excellent remarks, and will endeavour to confirm them with my own observations. We ought, however, in justice to ROUSSEAU, to consider his particular situation in life, before we attempt to form a decisive opinion on the spirit and tendency of his writings, in which he has exhibited his own character in its natural colours. Hence his frequent invectives against despotism, priestcraft, religious tyranny, philosophic systems and their authors, academic institutions, literary societies, physicians, and in short, against the whole science of medicine.

His enthusiastic love of liberty, together with his humane disposition, induced him to review the theatre of this whimsical world, at one time with the sarcastic smile of a satyrist, at another with the tear of a philanthropist, or with the poignant censure of a critic. But, the frowns of that capricious goddess, who but too often, with a partial hand, distributes what is vulgarly called the *fortunes* of man, as well as his ardent imagination, sometimes led him into extremes, where he could no longer discriminate between real good and evil. He was anxious to reconcile that inconsistent creature, Man, to the laws of simple Nature; without

considering, that he had wandered too far from her path, and that such an attempt would, in many instances, be attended with effects altogether incompatible with *existing circumstances*. His *Emilius* is intended as an archetype of education; and, by such an example, ROUSSEAU wished to teach *how* children ought to be educated. Had he paid too rigorous an attention to the difference of climate, national character, and civil institutions, his picture would, by these modifications, have acquired more shade than light: its uniformity would have been destroyed. Hence he aimed at an ideal perfection, which, if once fairly exhibited, may progressively lead mankind to approach by slow steps, what they cannot attain by hasty pursuits. Indeed, centuries may elapse, before the prevailing opinions, prejudices and principles, can be so modified and improved, that reason and universal philanthropy will preside over human affairs. In this assertion, I am supported by the powerful testimony of many modern writers on Education and Ethics; but particularly by the judicious and elegant translator of "*The Nurse*," a poem, from the Italian of TANSILLO, by Mr. ROSCOE, of Liverpool. In the Introduction to this classical work, he justly observes:

"That the character and manners of our countrymen, both in higher and lower life, afford but too much room for reform, is an assertion which

which may be made, without incurring the imputation of moroseness; but, till we can decidedly point out those circumstances which gave rise to this laxity, not to say depravity of manners, of the present day, it will be to no purpose to adopt measures for their improvement. Of these causes, the custom, still so prevalent, of committing the children of the richer and middle ranks of society to be brought up by the poor, is one of the most efficacious, and, like all other vicious institutions, its effects are injurious to all the parties who engage in it. The reason generally assigned by medical men, for promoting a custom which has of late received their almost universal sanction, is, that the mode of living, which now prevails in the higher ranks, is such as renders it impossible for a woman to afford her infant those advantages which are indispensibly necessary to its existence and support. But, is it possible to conceive a severer satire against the female sex, than this assertion implies? Such it seems is the rage for pleasure and amusement, that it must be gratified, even by the sacrifice of the most important duties of life, and by a practice which, if generally extended, would endanger the very existence of the human race."

Much, however, ought, in my opinion, to be trusted to time. For the *general* principles of ROUSSEAU will be valued and applied only as the age becomes more or less enlightened, and in

proportion to the number of thinking individuals.

"*Truth*," says another intelligent writer*, "in the *moral*, is analogous to *health*, in the *natural* world. Either may be checked and impeded, in the most favourable circumstances of physical or intellectual constitutions: but there is an unceasing effort, congenial with animation or existence, to restore them when lost; and when enjoyed, to improve them into perfection. That a fine Lady will sacrifice health, to avoid appearances unsuitable to her station; and that the laws of education *will be* relative to the passion of her conduct; these are facts which no man will dispute."

There are many among ROUSSEAU's maxims which we cannot adopt; and others which are entirely chimerical, and not applicable to common life. The hints which he imparts require prudent and reflecting readers; for, in some part of the work before mentioned, he frankly says, it was his intention to state whatever appeared to him practically useful, and to submit the choice and application to the judgment of the reader.

It cannot be doubted that persons educated upon the plan of *Emilius*, must be happy by their own efforts; as they have learnt to submit to the law of necessity, without detracting from the enjoyment of a well-regulated liberty; to endure

* Lectures on Political Principles, by the Rev. DAVID WILLIAMS. London, 1789.

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with resignation the pains inflicted by Nature, because they are exempt from the arbitrary sufferings arising from caprice and fashion; and lastly, to enjoy life, as this enjoyment consists of voluntary and self-determined acts of benevolence: their minds are vigorous, and their bodies inured to fatigue. Hence it appears to me, as well as to several continental writers, that the sense of liberty so happily blended, in this country, with the strictest submission to the laws; the valour of our sailors in perilous situations; their inexhaustible patience, and the peculiar firmness of mind discoverable in all classes of society—are in a great measure to be ascribed to a method of education, in which many of ROUSSEAU's maxims have already, though tacitly, been adopted.

In order to point out the merits, as well as the particular defects of this system, it will be necessary to advert to those parts of ROUSSEAU's positive injunctions which require to be explained, modified, or totally relinquished.

1. On the subject of Nursing and Suckling: I believe this essential duty has never been more forcibly inculcated, and brought home to the feelings of the maternal heart, than by this judicious Genevese. But, it deserves to be remarked, that *healthy* mothers only ought to suckle their children, while those who are sickly, passionate, fretful, or oppressed with grief, subject to fits of anger, epilepsy, scrophula, consumption, and other

diseases, should rather employ nurses, than ingraft their misery on the innocent offspring. Nor is it proper, that mothers who either cannot or will not comply with the rules of a suitable diet and regimen, should transfer their irregularities to infants.

2. With respect to the method of bracing and hardening children, of exposing them to the vicissitudes of climate and weather, which is indiscriminately recommended by ROUSSEAU, I shall only observe, that much precaution is necessary. The individual constitution of the body, the nature of the climate, the changes of the atmosphere, and the rotation of the seasons, all ought to be duly consulted, before any peculiar manner of treating the child be adopted. Thus children will become gradually accustomed to every kind of air and weather;—they will prefer the cold to the tepid bath, if we begin with the latter, as this transition from a warmer to a colder temperature is more natural to their tender organs. Such attempts, however, should not be accompanied with compulsion, as the sensations of the child will then be the safest guide.

3. ROUSSEAU very properly condemns all tight and straight garments, and swaddling clothes, but does not disapprove of cradles. It is very true, that gentle rocking is, as it were, a substitute for that uniform motion to which the child has long been accustomed previously to its birth; but it should

should be considered, that the child then existed in a surrounding medium, very different from the air it now breathes; that violent shaking of the cradle—a common expedient of impatient nurses—agitates the brain, stupifies the heads of children, and has a tendency to render them dull and indolent, when adults.

It would therefore be more prudent, not to accustom infants to any other, but an imperceptible agitation on the arms, immediately before they are placed on the couch.

4. Children are naturally active and lively; they are fond of erecting and destroying, in the same minute: hence the Creator has granted them but a small portion of strength, that they may not injure themselves, or others. This propensity, however, ought to be duly regulated; and such play-things to be procured, as contribute to the developement of their physical powers. As soon as they are able to move, active exercise should always be preferred to that of the passive kind; because, long standing, or sitting on the same spot, is extremely prejudicial to their health, impedes the growth of the body, contracts or cripples their limbs, and frequently produces the rickets. In the second and third years of infancy, all play-things, as well as the usual exercise, ought to be so contrived, that their understandings may also be improved.

5. To prevent children from assuming a haughty and imperious temper, ROUSSEAU gives very appropriate advice, the whole of which amounts to the following rule: That we ought to grant them more natural liberty, and allow them less dominion over others, so that they may learn, at an early period of life, to limit their desires according to their strength: thus they will relinquish, without reluctance, what it is not in their power to perform. This is an highly important point of education, and the greatest danger is to be apprehended from such indulgence, especially in the higher circles. In the present state of society, nurses and servants will hardly venture to contradict the young lady, or gentleman of rank.—Is it not a satire on the human character, when boys and girls are reminded of their birth and fortune, before they understand the nature of either? Nay, even infants are provoked to anger and revenge, by teaching them to strike at the object of their displeasure, or to scold the person who has offended them. In this absurd manner, they acquire incorrect ideas of things; and learn to transfer their own faults to external objects—an inclination which is but too obvious in mankind. Nor should they be suffered to tantalize and wrestle with adults, as if they were their equals in years and strength: on such occasions, their impotent blows ought not to be

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smiled at; as this conduct inevitably fosters in their breasts a desire of vengeance, which increases with its gratification. But their punishments must never be arbitrary nor hasty; because rigour and severity become doubly pernicious, if the child should feel the injustice done him by such reprehension. I cannot on this occasion forbear quoting an observation made by an acute inquirer, who expresses himself in the following words:

"It is painful to observe, how many parents, by the continual fluctuation of indulgence and severity; by the effervescence of their own passions, in the presence of their children, kindle such a blaze of vicious emotions in the susceptible breast of infancy, as all the efforts of succeeding life are not able to extinguish.

"Who is there, who has not seen a mother encouraging those bursts of youthful sprightliness at one moment, which at the next she depresses; or granting to importunity, what she would have denied to a modest request? Can we suppose the mind to be at any period so destitute of observation, as not to imbibe the lesson of caprice from so striking an example; as not to draw conclusions unfavourable to the necessity of settled principles?"

6. ROUSSEAU's maxims of *liberality* are so far just, as he proposes to teach children, to part with those things only, of which they understand

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and feel the value; for instance, play-things, dainties, and the like: but I submit to the decision of others, whether it be proper to explain the duty of benevolence, or charity, to young minds, merely from this motive, because there are two classes of people in the world, the rich and the poor: the former have promised to support all those who cannot maintain themselves, either by their income, or by their labour; and if the child should ask, whether its parent or tutor had made a similar promise, the answer, though not founded on truth, would be naturally in the affirmative. This explanation, however, appears to me improper, or at least extremely defective; because children ought first to acquire a clear notion of *property*, before they can conceive the justice and equity of reciprocal obligations; especially as charity is one of the imperfect social duties, and as such a compact between the rich and the poor does not actually exist. To rouse the powers of sympathy, generosity, and self-denial, in the susceptible breast, would, in my opinion, be more conducive to form the moral character of a child, than to speak of civil contracts, the nature of which it cannot comprehend. I shall go a step farther, in saying, that if the young and uncorrupted mind be persuaded of the inward satisfaction we derive from having performed a good and virtuous action, independently of its external merit or reward, such a conviction

viction cannot fail to be attended with the happiest effects.

7. With respect to the propriety of encouraging and satisfying the questions of children, I do not think it advisable to answer, or attempt to answer them, without limitation and reserve: on the contrary, it is better to decline or delay an answer, than to give either a confused or an unsatisfactory one; because the infantile mind would, in both cases, receive an unfavourable impression. Besides, by an implicit compliance with the wishes of a child, we should render ourselves subject to its will, and at length, we could no longer avoid a reply to questions, perhaps the most frivolous and improper. Unless, therefore, the question admit of an explicit and intelligible answer, it might be more prudent to change the conversation. Lastly,

8. The eccentric advice of ROUSSEAU, concerning the exercise of the memory, deserves some animadversion. He will not suffer his *Emilius* to learn a line by heart; and as, in his opinion, reading is the scourge of infancy, his pupil should at the age of twelve, scarcely know the use of a book. He also censures the reading of fables, because children are imposed upon by a fabricated tale, and lose sight of the truth, which ought to be revealed to them on all occasions, and without reserve.—These maxims appear to me liable to serious objections; for

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ROUSSEAU, in this instance, obviously endeavours to protract the period of childhood beyond its natural limits. It is, however, a vain and injudicious attempt to impose tasks of memory on children of *any* age, before they have completely learnt to spell and read; yet, here again, I would say, that they should never be suffered to read a sentence which they cannot comprehend. To compel youth to exercise their memory by repeating long and complicated passages, is always absurd; because their judgment, instead of being improved, is in this manner effectually checked and blunted. Hence I cannot implicitly subscribe to the remarks made on this subject by Mr. MALKIN:

"When ROUSSEAU recommends to his readers," says he, "to direct all their attention to the culture of the corporeal powers, and even to repress the expansion of the mental faculties, I discover him tottering on the precipice of paradox, and caution his unwary followers, how they commit themselves to the perils of an untried path. The grounds on which he argues against the expediency of infantine instruction, appear to be the following; that the mind, not as yet sufficiently discriminative, is incapable of distinguishing the true tendency of precept; that it is therefore the best policy, to preserve the tablet of the mind free from any impression, till it can receive its appropriate character; rather than hazard the contraction

tion of prejudice, by bewildering the senses with too remote propositions. But I cannot conceive it possible at any age, that the mind can continue a blank. If then we would prevent the intrusion of false opinions, we must furnish those which are just; and, though childhood may not be competent to fathom the depths of recondite philosophy, it may be taught to discern the obligations of morality, and the force of obvious truths."

If Mr. MALKIN had ever made the experiment to fill up those blanks in the minds of children, before he wrote on the subject, I am convinced he would have found this attempt more difficult than to write the most systematic and scientific essay. Were I allowed to draw any inference from my own experience, I should consider it altogether nugatory, to teach children such truths and doctrines which can in no other manner be explained to them, than by adding that they *must* believe them upon the authority of the teacher. The only idea of this kind, which ought to be early inculcated, so as to make children perfectly familiar with its application, is, in my opinion, the following: that no man is an isolated or independent agent; or, in other words, that we all want the assistance of one another, and that the inward satisfaction we derive from good and generous actions, is of greater value than the most bountiful reward of the world. All other notions, for instance, those of a Supreme Being, of immortality,

tality, filial love and duty, submission to our superiors, and the like, will be more readily understood by juvenile minds, when they begin to combine causes with effects; when they are involuntarily led to contemplate the beauties of the creation, and when their susceptible organs receive the first impression of this universal truth, "that order is the soul of things." In short, it is here as with all other mental pursuits: so long as the quantity, and not the quality, or nature of the knowledge acquired, forms the principal object, our best efforts will often prove abortive. I am therefore induced to think, that it is of infinitely greater consequence to know correctly, be it ever so little, than to burthen the mind with obscure and perplexed notions. Indeed it is to be lamented, that in the present *improving* state of society, we possess little, if any accurate, information on the *progressive method* in which the human constitution unfolds its intellectual faculties; and how far this developement is connected with the physical system of man. If the philosophic inquirers into this hidden process would advert to the peculiar transition and concatenation of ideas in children; if they would mark down every act of judgment arising from preceding reflections; they might gradually obtain such a number of interesting facts, as would in time afford some very useful general results. But, instead of attending to this important circumstance,

cumstance, the feeble minds of youth are rendered still more childish, while we endeavour to facilitate the study of the most serious branches of human knowledge, by means of play-things; so that, at length, their attention cannot be excited, nor their acquirements promoted, without so precarious an expedient. Nay, it appears almost inexplicable, how this puerile attempt should have been recommended by adults, who cannot be ignorant, that real knowledge is not of a fleeting or temporary nature, but that it is intended to become more permanent, by expanding the juvenile mind, and assisting it in proceeding from one step to another, till the boundaries between certainty and uncertainty arrest our progress.

Having now treated of the most essential points relative to the management of infancy, or the first five years of life, it will be asked, whether a public or private education be more eligible? This momentous question has been discussed by several eminent writers of this and other countries; but I believe it does not admit of such an answer as would apply either to individuals of different mental and bodily dispositions, or indiscriminately, to the various ranks of society. ADDISON was perhaps impressed with a similar idea, when he remarked in the *Spectator**, "That a *private* education seems the most natural method for the

* Vol. iv. No. 13. x.

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forming of a *virtuous* man; a *public* education, for making a man of *business*. The first would furnish a good subject for PLATO's republic; the latter, a member for a community over-run with artifice and corruption."

Many judicious and more modern writers appear to give a decided preference to private education. Of these I shall first quote the following excellent remarks on this subject by Mr. NORTHMORE: "In a moral view, indeed," says he, "the superiority of private education is most striking. At home, it is the tutor's unceasing care that his pupil shall neither hear nor see any object but what tends to the promotion of virtue; at school, his eyes and ears are daily tempted by what is most inflammatory and pernicious. Indeed from obscene, or abusive language, the youthful mind cannot be too strictly guarded, for "words are the shadows of things," and the youth who once gives himself up to his passions, is not easily recalled to the paths of science and virtue. It is for this reason, that SOCRATES used to pursue ALCIBIADES as a fugitive slave, whenever he abandoned himself to flatterers: whereas at a public school, even if a boy's reason point out to him to avoid any temptation, the ridicule of his companions is too strong for him to withstand. Thus he must be educated with the same vices and prejudices, and even the same understanding, as his school-fellows: the fear

fear of appearing singular, preventing either his virtue or his wisdom from forsaking the common beaten road.

" It is scarcely needful to mention the advantages of private tuition, in respect to the little risk of catching infectious diseases ; that the pupil's food is of the most wholesome kind, and that he is not stinted in the quantity ; that his exercises are when, and what he pleases ; and that, after having finished his own studies, he is not obliged to wait the time of his tardy schoolfellows. His morals and his health are preserved pure and untainted, and his mind unbent at a proper season. The studies of our great schools are chiefly confined to the dead languages. Youth of all descriptions, and for whatever future pursuits in life they may be designed, are sent there at an early age, to labour out ten or twelve years of their life, as if in the high road to the summit of their profession. The pupil ought not to enter upon the study of any, particularly a dead language, until he has attained a thorough knowledge of his own ; that is, until his mind has acquired some degree of firmness and solidity : the superiority of private tuition, also consists in not allowing of any long vacations, whereby the pupil is apt to lose what he has once attained. His memory is not burthened by an useless weekly repetition of two or three hundred lines, nor is he obliged to wait the tedious stated period of re-

moval into an higher class. The pupil is also assisted in discovering the beauties of the best authors by the superior experience of his teacher. His studies are regular; he never begins at the end, or ends at the beginning of a work. In reading a course of history, a succession of the best writers is pointed out to him; the cause and the effect of the various events, together with the uses to which they may hereafter be applicable, are studiously investigated.

"But, among the numerous advantages attendant upon private tuition, perhaps there is not one so beneficial in its consequences, or so essential to real knowledge, as that derived from literary and moral conversation. Much, certainly, may be learnt from books; but books (particularly the most valuable editions) are not always to be had; and if they were, the manners, the customs, the languages of their authors, are frequently unintelligible even to matured minds: their errors too, and prejudices, are apt to mislead. Conversation then, as an object of education, is of the greatest importance; but because its merits, comparatively speaking, are of higher estimation, we must not fall into the extreme of supposing books to be of little value. Books are more permanent than conversation; the same subject may be perused as frequently as we please: nor is it a matter of trivial moment, that even the prejudices which they may adopt, are not always

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the prejudices of the day. They are also more methodical, and on that account entitled to considerable attention. To this reasoning it may be added, that we are apt to give a more than just weight to the person, the character, the fame of the speaker.

" Nor must I omit to mention in this place, the inestimable advantages derived by youth educated at home, from the society of the female sex; a society which softens our manners, and preserves us in the paths of rectitude. I verily believe, it is more to a want of this society, than to any other cause, that we may attribute the vice and immorality so prevalent, both in our schools and universities."

Another writer, whose system of female education I would by no means implicitly recommend, has made several judicious reflections, which do equal credit to her understanding and zeal for improvement. When treating of national education, and the difference between private and public instruction, she expresses herself as follows :

" In order to inspire a love of home and domestic pleasures, children ought to be educated at home; for riotous holidays only make them fond of home, for their own sakes.

" While school-masters are dependant on the caprice of parents, little exertion can be expected from them, more than is necessary to please ignorant people. Indeed, the necessity of a master's

giving the parents some samples of the boy's abilities, which, during the vacation, is shewn to every visitor, is productive of more mischief than would at first be supposed; for it is seldom done entirely, to speak with moderation, by the child itself: thus the master countenances falsehood, or winds up the poor machine to some extraordinary exertion, that injures the wheels, and stops the progress of gradual improvement. The memory is loaded with unintelligible words, to make a shew of, without the understanding's acquiring any distinct ideas: but only that education deserves emphatically to be termed cultivation of mind, which teaches young people how to begin to think. The imagination should not be allowed to debauch the understanding, before it has gained strength, or vanity will become the forerunner of vice; for every way of exhibiting the acquirements of a child, is injurious to its moral character.

"How much time is lost in teaching them to recite what they do not understand! Such exhibitions only serve to strike the spreading fibres of vanity through the whole mind; for they neither teach children to speak fluently, nor behave gracefully;—so far from it, that these frivolous pursuits might comprehensively be termed the *study of affectation;* for we now rarely see a simple, bashful boy, though few people of taste were ever disgusted by that aukward sheepishness so natural

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to the age; which schools, and an early introduction into society, have changed into impudence and apish grimace.

"Yet how can these things be remedied, whilst school-masters depend entirely on parents for a subsistence; and when so many rival schools hang out their lures to catch the attention of vain fathers and mothers, whose parental affection only leads them to wish, that their children should outshine those of their neighbours?

"The little respect paid to chastity in the male world, is, I am persuaded, the grand source of many of the physical and moral evils that torment mankind, as well as of the vices and follies that degrade and destroy women; yet, at school, boys infallibly lose that decent bashfulness, which might have ripened into modesty at home. Besides, an habit of personal order, which has more effect on the moral character than is in general supposed, can only be acquired at home, where that respectful reserve is kept up, which checks the familiarity, that, sinking into brutality, undermines the affection it insults."

It would be superfluous to swell the catalogue of authorities, in order to prove the superiority of private, over public education. I shall therefore appeal to the feelings of those parents who value the health and morals of their children, more than any advantages arising from public seminaries. May I be forgiven, when I think the health of

youth is not benefited by these mercenary institutions?—because their allowance of food is too often regulated by the fluctuating price of provisions; a circumstance which ought not to influence either the quality or quantity of the aliment given to pupils.

Nor is the prevailing custom of placing two, and sometimes even three children in *one* bed, less subject to many and strong objections, both in a moral and physical point of view: this inconvenience, together with the danger attending so indelicate a practice, should induce every reflecting parent to procure for his child a separate couch, be it ever so simple, rather than furnish him with additional articles of dress, and other luxuries. But as the farther consideration of this and various other subjects, alike interesting, cannot be prosecuted in preliminary lectures, I shall endeavour to supply such apparent deficiency, by a concise abstract of Prof. HUFELAND's* opinions on the most essential points of physical education.

* Extracted from his pamphlet, entitled, "*Guter Rath an Mütter,*" &c. *i. e.* An Address to Mothers, containing good advice on the most important points relative to the physical education of their children, during the first years of infancy. 8vo. p. p. 86. Berlin, 1799.

Of

Of Food and Drink.

Happy is the child who, during the first period of its existence, is fed upon no other aliment than the milk of its mother, or that of a healthy nurse! If other food becomes necessary before the child has acquired teeth, it ought to be of a liquid form; for instance, biscuits, or stale bread, boiled in an equal mixture of milk and water, to the consistence of a thick soup; but by no means even this in the first week of its life. Flour or meal ought never to be used for soup, as it produces viscid humours, instead of a wholesome nutritious chyle, while it lays the foundation for worms, and obstructs the mesentery. After the first six months, weak veal or chicken broth may be given, and also, progressively, vegetables that are not very flatulent; for instance, carrots, endive, spinage, parsnips, scorzonera made into pudding, with broth and boiled fruit, such as apples, pears, plums, and cherries. When the infant is weaned, and has acquired its proper teeth, it is advisable to let it have small portions of meat, and other vegetables, as well as dishes prepared of flour, &c. so that it may gradually become accustomed to every kind of strong and wholesome food. We ought, however, to be cautious, and not, upon any account, to allow a child pastry, confectionary, cheese, heavy dishes made

of boiled or baked flour, onions, horse-radish, mustard, smoaked and salted meat, especially pork, and all compound dishes; for the most simple food is the most salubrious. Potatoes should be allowed only in moderation, and not be eaten with butter, but rather with other vegetables, either mashed up or in broth.

The time of taking food is not a matter of indifference: very young infants make an exception; for as their consumption of vital power is more rapid, they may be more frequently indulged with aliment. It is, however, advisable to accustom even them to a certain regularity, so as to allow them their victuals at stated periods of the day; for it has been observed, that those children which were fed indiscriminately through the whole day, were subject to debility and disease. The stomach should be allowed to recover its tone, and to collect the juices necessary for digestion, before it is supplied with a new portion of food. According to the experience of Prof. HUFELAND, the following order of giving food to children has been found the most proper, and conducive to their health:—after rising in the morning (suppose about six o'clock), a moderate portion of luke-warm milk, with well-baked bread, which should by no means be new; at nine o'clock, bread with some fruit, or, if fruit be scarce, a small quantity of fresh butter; about twelve o'clock, the dinner, of a sufficient quantity; between

tween four and five o'clock, some bread with fruit, or, in winter, the jam of plums, as a substitute for fruit, or the inspissated juice of carrots, which is a very wholesome preparation, and an excellent vermifuge. On this occasion, children should be allowed to eat till they are satisfied, without surfeiting themselves, that they may not crave for a heavy supper, which disturbs their rest, and is productive of bad humours: lastly, about seven o'clock they may be permitted a light supper, consisting either of milk, soup, fruit, or boiled vegetables, and the like, but neither meat nor mealy dishes, nor any articles of food which produce flatulency; in short, they ought then to eat but little, and remain awake at least for one hour after it.

It has often been contended, that bread is hurtful to children; but this applies only to new bread, or such as is not sufficiently baked; for instance, our rolls, muffins, and crumpets, than which nothing can be more hurtful and oppressive. Good wheaten bread is extremely proper during the first years of infancy; but that made of rye, or a mixture of wheat and rye, would be more conducive to health after the age of childhood.

Among all the different articles of vegetable food, there is, in the opinion of Prof. HUFELAND, perhaps none more nutritive, in the most concentrated form, than the salep-root. By this domestic remedy he has restored weakly and emaciated

ciated children in a few weeks, so that they recovered their former healthful appearance, together with muscular strength and plumpness; nay, the learned Professor even asserts, that thus he has rescued them from the jaws of death. A single dram of the powder of this root boiled in a pint of water, makes a very strong jelly; and two drams would afford sufficient nourishment to an adult for twenty-four hours. He is not acquainted with any substance which possesses equal virtues in nourishing weakly children, who are reduced by diarrhœas and other evacuations, and re-producing a salubrious mass of blood, so speedily as this excellent root: and what enhances its value beyond any comparison, is the circumstance of its being perfectly harmless, or productive of no bad consequences. This, indeed, is a great consideration with respect to children, as it is not a matter of indifference, by what means they are nourished and strengthened. Thus, if we were to nurture them with concentrated animal food, we might also attain the purpose, but their blood would become so heated, and the whole body rendered so irritable, that fevers, inflammations, convulsions, and apoplexy, might be easily induced. The before-mentioned root, however, is not subject to any of these objections, as it affords a mild nutriment, and agrees with the most irritable constitutions. For this reason, every mother may give her child, daily, a small tea-

spoon

spoon full, or one dram, of finely-powdered salep-root, reduced to jelly in milk, broth, or soup: it ought, however, to be previously stirred and dissolved in a little cold water, before it is added to the boiling liquid.

With respect to *drink*, Prof. HUFELAND is decidedly against giving it to children in large quantities, and at irregular periods, whether it consist of the mother's milk, or any other equally mild liquor. It is improper and pernicious to keep infants continually at the breast; and it would be less hurtful, nay even judicious, to let them cry for a few nights, rather than to fill them incessantly with milk, which readily turns sour on the stomach, weakens the digestive organs, obstructs the mesenteric glands, and ultimately generates scrophulous and ricketty affections. In the latter part of the first year, pure water may occasionally be given; and if this cannot be procured, a light and well-fermented table-beer might be substituted. Those parents who accustom their children to drink water only, bestow on them a fortune, the value and importance of which will be sensibly felt through life. Many children, however, acquire a habit of drinking during their meals; it would be more conducive to digestion, if they were accustomed to drink only after having made a meal. This useful rule is too often neglected, though it be certain that inundations of the stomach, during the mastication and maceration

ration of food, not only vitiate digestion, but they may be attended with other bad consequences; as cold drink, when brought in contact with the teeth previously heated, may easily occasion cracks or chinks in these useful bones, and pave the way for their carious dissolution.

Of Sleep.

Infants cannot sleep too long; and it is a favourable symptom, when they enjoy a calm and long-continued rest, of which they should by no means be deprived, as this is the greatest support granted to them by Nature. A child lives, comparatively, much faster than an adult; its blood flows more rapidly; every stimulus operates more powerfully; and not only its constituent parts, but its vital resources also, are more speedily consumed. Sleep promotes a more calm and uniform circulation of the blood; it facilitates the assimilation of the nutriment received, and contributes towards a more copious and regular deposition of alimentary matter, while the horizontal posture is the most favourable to the growth and bodily developement of the child.

Sleep ought to be in proportion to the age of the infant. After an uninterrupted rest of nine months in the state of a fœtus, this salutary refreshment should continue to fill up the greater part of a child's existence; and Prof. HUFELAND affirms,

affirms, that a continued watchfulness of twenty-four hours would prove destructive. After the age of six months, the periods of sleep, as well as all other animal functions, may in some degree be regulated; yet, even then, a child should be suffered to sleep the whole night, and several hours both in the morning and afternoon. Mothers and nurses should endeavour to accustom infants, from the time of their birth, to sleep in the night preferably to the day, and for this purpose they ought to remove all external impressions which may disturb their rest, such as noise, light, &c. but especially not to obey every call for taking them up, and giving food at improper times. After the second year of their age, they will not instinctively require to sleep in the forenoon, though after dinner it may be continued to the third and fourth year of life, if the child shews a particular inclination to repose; because, till that age, the full half of its time may safely be allotted to sleep. From that period, however, it ought to be shortened for the space of one hour with every succeeding year; so that a child of seven years old may sleep about eight, and not exceeding nine hours: this proportion may be continued to the age of adolescence, and even manhood.

To awaken children from their sleep with a noise, or in an impetuous manner, is extremely injudicious and hurtful: nor is it proper to carry them

them from a dark room immediately into a glaring light, or against a dazzling wall; for the sudden impression of light debilitates the organs of vision, and lays the foundation of weak eyes, from early infancy.

Another habit still more dangerous, and often destructive in its consequences, deserves severe animadversion: it is the practice of playing with children after sleep, while they remain in bed, or suffering them to indulge their fancy, when awake in the morning. Thus, alas! the stimulating heat of the couch, together with the accumulated matters destined for evacuation, almost inevitably rouses certain sensations, which but too frequently unfold the dormant sexual instinct, at an early period of life. Those parents and guardians who are anxious to preserve their children from vice, ought cautiously to guard against such habits. The most proper regulation with respect to the sleep of children upwards of seven years of age, appears to be the following: to send them to their beds, at the latest, at nine o'clock, and to awaken them at six o'clock in the morning.

A bed-room, or nursery, ought to be spacious and lofty, dry, airy, and not inhabited through the day. No servants, if possible, should be suffered to sleep in the same room, and no linen or washed clothes should ever be hung there to dry, as they contaminate the air in which so considerable a portion of infantine life must be spent.

The

The consequences attending a vitiated atmosphere in such rooms, are various, and often fatal. Feather-beds should be banished from nurseries, as they are an unnatural and debilitating contrivance. The windows should never be opened at night, but left open the whole day, in fine clear weather. Lastly, the bedstead must not be placed too low on the floor; nor is it proper to let children sleep on a couch which is made without any elevation from the ground; because the most mephitic and pernicious stratum of air in an apartment, is that within one or two feet from the floor, while the most wholesome, or atmospheric air, is in the middle of the room, and the inflammable gas ascends to the top.

Of Crying.

Man, when first he enters the world, announces himself by his plaintive voice, and we thence form no other conclusion than that he lives. Instead of being alarmed by his cries, we justly rejoice; because they indicate expanded lungs and vital action. In a similar manner we ought to regard the squalling of infants when they advance in age, as they generally imply little more than the loud expressions of their existence. Frequently, however, tender mothers and officious nurses are not only extremely concerned at every demonstration of the pulmonic powers of a child, but even busy

busy in relieving the clamorous noise, by means generally the most absurd and pernicious. In order to prevent such mischievous attempts, and to prove that the crying of children is useful and salutary to them, rather than hurtful, let us take a more comprehensive view of this subject.

If we inquire into the causes which produce the crying of infants, we shall find that it seldom originates from pain, or uncomfortable sensations; for those who are apt to imagine that such causes must *always* operate on the body of an infant, are egregiously mistaken; inasmuch as they conceive that the physical condition, together with the method of expressing sensations, is the same in infants and adults. It requires, however, no demonstration that the state of the former is essentially different from that of the latter. In the first years of infancy, many expressions of the tender organs are to be considered only as efforts, or manifestations of power. We observe, for instance, that a child, as soon as it is undressed, or disencumbered from swaddling clothes, moves its arms and legs, and often makes a variety of strong exertions; yet no reasonable person would suppose that such attempts arise from a preternatural or oppressive state of the little agent. It is therefore equally absurd, to draw an unfavourable inference from every inarticulate cry; because, in most instances, these vociferating sounds imply the effort which children necessarily make to display

display the strength of their lungs, and exercise the organs of respiration. Nature has wisely ordained, that by these very efforts the power and utility of functions so essential to life, should be developed, and rendered more perfect with every inspiration. Hence it follows, that those over-anxious parents or nurses, who continually endeavour to prevent infants from crying, do them a material injury; for, by such imprudent management, their children seldom or never acquire a perfect form of the breast, while the foundation is laid in the pectoral vessels for obstructions, and other diseases.

Let us however suppose, that there really prevails a morbid sensation, or pain, which occasions the complaints of the infant: such expressions then are very frequently the most effectual means of removing the cause. Thus, flatulency, which presses upon the diaphragm, occasions pain, and involuntarily stimulates the child to procure itself relief by cries; these are necessarily accompanied with increased respiration; the safest means of dissipating the stagnant air in the abdominal region. Another cause of loud complaints is, accumulations of viscid matter, or congestions of blood in the pulmonary vessels: these also cannot be relieved more speedily and certainly than by vociferation. Even in those cases, where the circulation of the fluid towards the external parts of the body is languid, which very often occurs

in children, and produces uncomfortable sensations, there is no better remedy to promote a due and more uniform circulation, than these efforts of Nature.

But, independently of any particular causes, the cries of children, with regard to their general effects, are highly beneficial and necessary. In the first period of life, such exertions are the almost only exercise of the infant: thus the circulation of the blood, and all the other fluids, is rendered more uniform; digestion, nutrition, and the growth of the body, are thereby promoted; and the different secretions, together with the very important office of the skin, or insensible perspiration, are duly performed. Hence it is extremely improper to consider every noise of an infant as a claim upon our assistance, and to intrude either food or drink, with a view to satisfy its supposed wants. By such injudicious conduct, children readily acquire the injurious habit of demanding things, or nutriment, at improper times, and without necessity; their digestion becomes impaired; and consequently, at this early age, the whole mass of the fluids is gradually corrupted. If, however, the mother or nurse has no recourse to the administration of aliment, they at least remove the child from its couch, carry it about, frequently in the middle of the night, and thus expose it to repeated colds, which are in their effects infinitely more dangerous than the most violent cries.

cries. Others will be so much alarmed as to call in medical assistance; and as a physician or surgeon would be thought a very ignorant or unfeeling man, if he should prescribe no remedy, even though the cause of the complaint remain obscure, we may easily imagine the mischievous consequences thence resulting. Let us even suppose, that none of these expedients be adopted, it will be found that infants very soon become sensible of the anxious attention paid to their cries, especially when they perceive that things are given to them with a view to satisfy their claims: by such imprudent management, the foundation is laid for a troublesome and obstinate temper; while their habitual complaints, so far from abating, daily increase. Prof. HUFELAND has uniformly remarked, that those infants whose cries were anxiously attended to, became the most violent; as, on the contrary, those who were treated with apparent indifference, soon relinquished this unpleasant custom: in short, it cannot be denied, that too anxious and rigid an attention bestowed on those little darlings, is the most certain way of enervating their mind and body.

We learn indeed from daily experience, that children who have been the least indulged, thrive much better, unfold all their faculties quicker, and acquire more muscular strength and vigour of mind, than those who have been constantly favoured, and treated by their parents with the

most solicitous attention: bodily weakness and mental imbecility are the usual attributes of the latter. The first and principal rule of education ought never to be forgotten; that man is intended to be a free and independent agent; that his moral and physical powers ought to be *spontaneously* developed; and that he should as soon as possible be made acquainted with the nature and uses of all his faculties, in order to attain that degree of perfection which is consistent with the structure of his organs; and that he is not originally designed for what we endeavour to make of him by artificial aid. Hence the greatest art in educating children, consists in the continual vigilance over all their actions, without ever giving them an opportunity of discovering that they are guided and watched.

There are, however, instances in which the loud complaints of infants deserve our attention. Thus, if their cries be unusually violent and long continued, while they draw their legs towards the belly, we may conclude that they are troubled with colic pains; if, on such occasions, they move their arms and hands repeatedly towards the face, painful teething may account for the cause; and, if other morbid phenomena accompany their cries, or if these expressions be repeated at certain periods of the day, we ought not to slight them, but endeavour to discover their proximate or remote causes.

Con-

Conclusion.

Having, in these Introductory Lectures, treated of almost every subject which appeared to me of essential consequence in the general management of education, I cannot in this place extend my observations and remarks, without encroaching upon the limits of the following Treatise. And as Dr. STRUVE will sometimes be found either obscure, or apparently differing from the peculiar methods of educating children adopted in this country, I shall, on such occasions, endeavour to illustrate the subject by explanatory notes. At present, I cannot conclude these preliminary labours in words more appropriate than those of Mr. MALKIN:

"In the progress of education, difficulties multiply; but in its first periods, the rules to be observed are simple and easy, if steadily pursued. To dedicate a close attention to such a regimen as may promote the health, strength, and growth of the body; to operate by gentle progression upon the tender intellect; to exhibit the equability of an amiable temper, and preclude the approach of dangerous example; above all, to persevere in a calm and uniform method, through the course of didactic and moral discipline; these are the requisites for discharging the parental office with fidelity and success."

A

FAMILIAR TREATISE

ON THE

EDUCATION OF CHILDREN,

DURING THE FIRST PERIOD OF THEIR LIVES.

PRELIMINARY OBSERVATIONS.

On the importance of Education during the first period of life. The great mortality of infants must be ascribed to an injudicious system followed in their treatment. Mothers ought not to rely on Nurses and common Servants, but take an active part in the management of their offspring, which is indeed exclusively their office. Circumstances apparently trifling, are in the Nursery of great moment. Fathers also should not be idle spectators.

WHATEVER attention and trouble parents bestow on their progeny, during the first years of infancy, may be considered as a legacy bequeathed to them for life. It is in this first stage of education, that the human creature is qualified to become a fit inhabitant of the world. Mothers, therefore, have great and important duties to perform, as they are by Nature appointed to regulate the earliest attempts made in education; though their merits, in this respect, are not sufficiently acknowledged and rewarded. A mother, who educates her child in a rational manner, is an ornament to her sex. The greatest charms and dignity of a woman, are derived from her maternal

nal office; and a good mother equally deserves the affection of her husband, and the esteem of the world.

Parents who may peruse this Treatise, will be convinced that children, from their very birth, ought to be treated in a manner different from what is commonly practised, if they are intended to become healthy and happy members of society. They will here be made acquainted with the causes which contribute to produce so many miserable and unhealthy children; crippled and corrupted men, both in mind and body; and the premature deaths of numbers almost incredible. Disconsolate parents will perhaps discover, when too late, what has occasioned the floods of tears shed on the graves of beloved children; nay, after they have acquired more correct ideas of the treatment proper in infancy, and should then inspect the usual nurseries, they will frequently wonder how such a proportion of children can escape the general calamity.

Man has a strong propensity to charge Nature with his foibles and faults; though it be certain that this universal parent, if uncontrouled by the hands of art, produces no caricatures, either in the vegetable or animal kingdoms. He is placed on this globe tolerably perfect, by the hands of the Creator; but he too frequently degenerates under the treatment of his misguided fellow-creatures.

Many

Many weak parents are apt to console themselves respecting the diversified miseries and bodily defects, disease, and early dissolution of their darlings, by considering all these as natural and inevitable events. But such persons do not reflect upon the possibility of better management, and consequently cannot conceive a degree of success more adequate to their wishes: they do not attend to the healthier children of others, who proceed upon a very different plan. Instead of calmly wiping away their tears, and admitting a predestined fatality, they ought in duty to ask themselves, or to inquire of others, how their children have been treated.

These spurious consolations, however, must often be attributed to the ignorance of those who, without troubling themselves respecting such trifles, implicitly follow the general custom. We have been so educated, say they, and become adults; why should not our children be managed in a similar manner?—for instance, hundreds have prospered who were fed upon meal-porridge: or the prejudiced mother replies to her more enlightened daughter, that, as all her sisters have been straightened in swaddling-clothes, and worn stays, why should her children make exceptions from the old established rule?

Prejudice is the perpetual enemy of reason; its slaves are both blind and deaf; and no rational book on education has ever been published, from which

which such persons could be benefited. But mothers accustomed to read with attention, to reflect, and compare the hints of others with their own practice, have already made the first step towards improving the education of youth: their own judgment will guide them in many instances, where slight reforms and deviations from the usual practice are necessary, if they wish to see healthy, chearful, and happy children. Rational and enlightened minds will find no difficulty to apply useful and obvious truths to the test of experience; for maternal affection will inspire them with adequate resolution. To attempt a refutation of the absurd mode of reasoning, by which many biassed persons palliate the grossest errors, would be an insult offered to their understanding.

Although numberless children have arrived at maturity by the common management, this circumstance is no proof of its excellence. Nature is almost invincible: she often conquers difficulties opposed to her beneficent efforts, by the ignorance, superstition, nay even the malignity of man. Thus, many a patient has recovered his health, though he followed the prescription of the most wretched empiric; but can it thence be reasonably inferred, that we ought to entrust our lives to ignorant pretenders? When such superficial arguments are used, it should always be recollected, what numbers of children are ruined by improper treatment, and how many poor and rich

patients

patients fall victims to the poisonous medicines of bold and ignorant quacks*. Because many children,

* Had we not recent instances of the unparalleled audacity displayed by the most illiterate impostors, the following anecdote would scarcely be credited:—A very respectable physician, who is still engaged in the active duties of his profession, was prosecuted in a court of justice, not many years since, by a late notorious *urine-caster*, for having published a libel, in which his vile practices were exposed to public view. The jury, probably consisting of common tradesmen, incapible of discriminating between the pursuits and means adopted by an impostor, and those of any fair dealer, who might be injured by publishing *facts relative to his trade*, found the defendant guilty of the libel, and gave considerable damages to the plaintiff. Such things happen in our *soi-disant* enlightened age! And though the original water-doctor has now paid the last debt of nature, and joined those whom he has forwarded to their untimely graves, yet it would not be advisable to record names and titles; as his not unworthy son and heir, together with a rich step-mother, who both pretend to possess the original prescriptions of that great man's medicines, might easily be induced to *join* in a prosecution at law, in order to vindicate the character of their noble ancestor, who, by the credulity of the English, was enabled to purchase a title and estate in Germany. The following quotation is so appropriate to this narrative, and contains so much truth, that it will stand here in its proper place:—"It has been an observation no less true than common, that the English are the greatest dupes of novelty and deception under the sun; and however absurd and inconsistent the publication of any matter or subject may be, if there is the least plausibility in the tale, or suitableness in the application, no people will swallow the bait with less reluctance, or proclaim its

dren, as well as patients, undergo the severest trials, without succumbing under their operation, should such miraculous escapes induce any rational agent to expose himself, or those he regards, to similar dangers? Neither is the number of surviving infants, who have been brought up by the customary routine, sufficient to determine its propriety; nor can the resort of the multitude to the house of a *charlatan*, together with the loudest applause of the vulgar, establish his reputation as an intelligent physician. For, as there prevails a great variety of constitutions among children, some will doubtless be more hardy than others; and many patients also will recover, though entrusted to unskilful hands. Lastly, those who on such occasions always appeal to experience, and bid defiance to reason, deserve compassion rather than reproof. Were they, however, asked whether the children, of whose education they boast, have enjoyed good health, especially during the first period of life? whether they were of a straight and perfect form? and whether

its excellence with greater zeal. To be an object of credulity in matters merely indifferent, will frequently afford just grounds for censure, and the consequences may not be very great; but, when the most precious thing we possess is liable to sustain material injury, if not be effectually ruined, it becomes a subject too serious for burlesque, and too important to trifle with." See the *Gazetteer*, August 26, 1776.—— *Translator.*

none

none of them died in infancy?—the answer to these questions might probably refute them by their own experience.

The mortality of mankind is, according to the registers kept of it, in all countries most remarkable during the earliest infancy. It has been asserted, that one-half of all the children doomed to early dissolution, die before they have attained the third year; and that, upon an average, the tenth part of the human race are consigned to their graves before the age of puberty*. Such appears to be the law of Nature; as infantine life is attended with diversified accidents and hardships, which only a firm and vigorous frame can support; and yet these sufferings are perhaps necessary to promote the developement of the human body. But notwithstanding the numerous attacks of disease to which infancy is exposed, such as the thrush, small-pox, measles, chin-cough, &c. their mortality is so disproportionate, that a belief of its necessity, or an idea that Providence had ordained it, would amount to

* In this calculation Dr. STRUVE does not appear to be correct; for, according to the corresponding accounts of various authors, as well as from the bills of mortality, it is evident that a much greater proportion of children die previous to the *tenth* year of age. There is but too much reason to suppose, that the fourth part of human beings fall victims to improper treatment, before they have attained their *seventh* year.——*Transl.*

direct

direct blasphemy. This notion could arise only from the false supposition, that Nature carries on her sport with the human race, and that she has placed a number of creatures in the world, in order speedily to remove them, to increase the woes and tears of tender parents, and thus, in the most cruel manner, to disappoint their hopes. Who can be so impious as to entertain such gloomy thoughts? Hence there must be other adventitious causes of this surprizing mortality; causes which cannot be discovered in the natural constitution of infants, and nevertheless in a remarkable degree contribute to produce those fatal effects. While I request the reader to reflect on the probable sources of this evil, I shall endeavour to point out a few of the most important circumstances connected with this inquiry.

First, It will be admitted by every intelligent observer, that most of the usual diseases, which either deplorably undermine the health of children, or precipitate them into the grave, are by no means inevitable, or maladies peculiar to their age; on the contrary, that they may be easily prevented by judicious treatment. Of this nature, for instance, are the rickets and the thrush: the latter is in some countries scarcely known by name, while in others it destroys numbers of innocents; the former is a disease generally occasioned by a coarse, improper, and immoderate nourishment, want of fresh air, exercise, &c. There are a

variety

variety of other disorders which are not peculiar to infantine age, and are always propagated by infection; such as the venereal disease, the gout*, nay, even consumption*, may be communicated by the breasts of mothers or nurses subject to these complaints. With respect to the affection last mentioned, I can speak positively from my own experience, which has furnished me with a melancholy case of a child infected by a consumptive nurse. Hence the numberless evils, together with the inexpressible sorrows which accompany them, may be averted by judicious management,

* Whether the *Gout* and *Consumption*, in general, be contagious diseases, is extremely doubtful; though it is highly probable, that they may be communicated by the milk of nurses. In the temperate climates of Europe, such as that of the British Isles, I am persuaded there is very little danger of propagating them by infection, among *adults*; but in the warmer countries, for instance, in Italy, Portugal, and Spain, the danger is comparatively greater; and I remember having read in a late work on the Diseases of Spain, that there subsists a regulation, by which it is prohibited to sleep in the same bed with a consumptive patient. Several modern medical writers, however, maintain that even the typhus-fever is not absolutely contagious, and that all infection whatever takes place only from immediate contact or touch. If this assertion be well founded, we have every reason to hope that the benevolent design of extirpating the small-pox from the list of the prevailing epidemics in Europe, as proposed by several eminent physicians in Germany, will yet be carried into effect; because the plague and the leprosy have, during several centuries, been checked by similar measures.——*Transl.*

or even by preventing the possibility of infection; consequently the diseases and deaths of children will become less frequent and alarming.

Secondly, The hardships of childhood may unquestionably be lessened by a rational treatment, which would also reduce the bills of mortality; and it is chiefly owing to neglect, that so many children lead a comparatively vegetable life, or become early victims of death. Nor would the diseases attendant on infantine age be so virulent and fatal, if they were not aggravated by improper treatment; which occasions either debility or a preternatural susceptibility of every stimulus, and consequently all those bad consequences I have stated in the Appendix, when treating of the period of evolution. On the whole, a consistent regulation of the diet and regimen of children, renders all their maladies less acute and fatal; a proposition which is amply supported by the present mild nature of the small-pox.

Thirdly, Experience has convinced us, that, by a rational education in general, a greater number of children are preserved than is accomplished in the contrary case. This salutary effect may be chiefly attributed to the nurture of children by the milk of their own mothers. From an authentic calculation made in France, it appears that more than one-half of those infants who were intrusted to the care of nurses, died previous to the third year of their age: FOURCROY, on the other hand,

hand, assures us, that of one hundred reared at the maternal breast, not one lost its life during infancy. I cannot, however, on this occasion omit to remark, that the former consequences resulted from the conduct of the dissipated nurses in France, who shamefully neglected the children committed to their care in the country. And though, fortunately, this charge does not strictly apply to our German nurses, nor those in England, yet the afore-mentioned computation may serve to illustrate and confirm my assertion.

What a host of children die annually of the small-pox, consumption, and convulsions! Diseases of this nature, and their frequent fatality, may in general be prevented by avoiding the numberless errors daily committed in respect to diet. Among other causes productive of convulsions, I shall here point out only the damp and unhealthy rooms in which, perhaps, nine-tenths of all infants are kept, together with adults, who, by their breath, corrupt the atmosphere. According to a calculation made by Dr. CLARKE, at the end of the year 1792, he found, that of 17,650 children born in the Lying-in Hospital at Dublin, not less than 2944, consequently the sixth part, died during the first years of their existence, and that nineteen out of twenty fell victims to general convulsions. At the same time Dr. CLARKE observed, that in another institution, which was situated in a less airy part of the town, the mortality

of infants was comparatively small, and that the instances of children dying of spasmodic diseases were extremely rare in the different lying-in charities of London. This intelligent physician ascribes that deplorable mortality to the following causes: 1. a vitiated state of the air, or an impure atmosphere; 2. a neglect in properly cleaning and drying infants; and 3. to the irregular life of mothers, and especially to their destructive habit of drinking spirituous liquors. When these adventitious causes were avoided, the number of deaths among infants was only in the proportion of one to nineteen that survived.

Fourthly, Nature, by her parental solicitude, has so constituted the infantine body, that it may sustain the hardships she has imposed upon it, without suffering material injury. Indeed the common adage, that children are more hardy than adults, is strictly true; for, by that wise regulation, they are enabled to undergo all the revolutions necessary for the complete developement of the human frame. It is therefore obvious, that a much greater proportion of mankind, being supported by beneficent Nature, would overcome the difficulties attendant on the first period of life, if man had not interfered with her, whose progress cannot be checked with impunity.

From these considerations I am induced to conclude, that the great mortality of children arises principally from circumstances either accidental,

dental, or occasioned by the hands of man : and if Nature were left to herself, while external causes might be averted, one-half of the beings would be saved, who are now consigned to an early grave. And though it is not in our power to prevent the dissolution of those whose organs are incurable by human efforts, yet we may diminish the causes which contribute to that fatal end. If we were permitted to inquire, in every case where a child died of convulsions, the small-pox, the hooping-cough, &c. how it had been nurtured, a candid answer would in most instances discover the predisposing causes of its death, and thus enable us to form just conclusions, by ascertaining the connection between cause and effect. In this manner, we should learn that one-half of those unhappy victims might have been saved, by treating them upon a different plan. Thousands of children would certainly not have been destroyed by that merciless disorder, the small-pox, had they not been secluded from the benefit of fresh air, in rooms saturated with the most mephitic vapours. Since we have adopted a more rational method of managing this loathsome complaint, a much smaller number die under its influence. Thus Nature is justified; but man still remains obstinate, and is governed by prejudice.

It is impossible to visit the usual nurseries, and to behold the misery that prevails in them, without feeling an anxious desire to deliver the poor

creatures from the torments to which they are exposed. Children with crooked shoulders, ensiform legs, thick swollen bellies, unusually large heads, and features resembling those of old men; all compose the distressing scene: add to these, the incessant cries, the hollow eyes surrounded with a blue ring, the pale faces, not unlike those of prisoners kept in subterraneous dungeons; then the instruments of torture, such as walking-machines dragged about the room, high chairs in which they are confined for several hours together, and you will have a complete picture of a German nursery*. Immediately on entering such

* Although this gloomy description may not exactly correspond to the general treatment of children in this country, especially among the more enlightened class of society, yet I apprehend it is not altogether inapplicable to those nurseries in the vicinity of the metropolis, where infants of different families are reared like plants, upon a certain weekly allowance. Alas! my own neighbourhood abounds with ricketty, bandy-legged, and sickly children. Many persons, however, are not so favourably situated in life, that they can either attend to the nursing of their own children, or afford to keep a sufficient number of servants, at the present extravagant price of provisions. Before such families intrust their dearest pledges of affection to strangers, I can only advise them to institute a rigorous inquiry into the moral and physical character of the nurse, and then to pay frequent visits, not on Sundays only, but unexpectedly on different days of the week, and at various hours of the day; a plan by which they would certainly discover any mismanagement, or irregularities of their deputy-guardians.——*Transl.*

a place

a place of confinement, we are convinced that it must be the habitation of misery and disease.

Mothers, if you read the first pages of this book with attention, have compassion towards your children, and do not commit them to the care of ignorant and unreasonable nurses, who, more than yourselves, decide the future lot of your innocent offspring! Fulfil your duties as guardians appointed by Nature, and do not execute by proxy the sacred trust of education. What can be more important than to educate men, and what office produces more heart-felt rewards? Rather than confide the health, life, and happiness of your children to the hands of strangers, employ the latter in the management of your household affairs: no price is adequate to healthful and well-bred children; they will amply repay you for all the tears, the time, trouble, and care bestowed on them, as well as for the eventual losses you may sustain, for their sakes, in your economical concerns. Yet, every sensible mother and prudent house-wife will divide her various domestic occupations in such a manner, as to enable her to pay sufficient attention to the nursery: she will not suffer her valuable time to be wasted by inferior pursuits, which can be easily managed by others.

In the first years of infantine age, Nature has imposed the charge of education peculiarly on the mother, who should yield her place to no substitute, unless compelled by dire necessity; yet she

must not spend whole days with her little family in the nursery, but allow them the enjoyment of fresh air, make them her companions abroad, and have a watchful eye over them, as much as her situation in life will admit. I need not point out to mothers the sweet reward resulting from a conscientious discharge of their duties; their own hearts will proclaim to them the delightful sensations arising from a conviction that they have conducted their darlings through the dangers which threatened the first period of their existence.

A prudent mother will not, upon any account, rely upon servants or nurses alone; for they are destitute of those refined feelings peculiar to the maternal heart. Most of these mercenary agents neglect children from habitual indolence and convenience, or from superstition and ignorance, nay, frequently even from malignant motives. Scarcely has the well-meaning mother left the nursery, when they will return to their old irrational practices: in short, as the generality of nurses and female servants are at present*, it is

* There are, however, many exceptions to this serious charge; but it cannot be denied, that most persons offering themselves for nurses, are more or less corrupted; partly by the prejudices imbibed during their defective education, and partly by the contagious example of others. On the contrary, there are mothers, whose children might be better provided for, if intrusted to a careful nurse; but to such parents this book is not addressed.

indis-

indispensibly necessary that the natural guardians should not lose sight of their infants, till they require no longer an uninterrupted assistance. Parents are often too little acquainted with the real character of those, to whose immediate care they intrust the chief objects of their happiness: all their solicitude to prevent the noxious influence of prejudice and superstition on their children, will, in most instances, prove ineffectual, if they do not condescend to become nurses in their own family. And as this work is designedly written for tender and intelligent mothers, I trust I may be permitted to ask, Of what service to them would be the knowledge of preserving children in a healthy and chearful state, if they cannot themselves employ the proper means conducive to that end, and must submit to be continually imposed upon by hired agents? I am of opinion, that mothers, independently of their rank or quality, would act more prudently, if, instead of hiring professional nurses, they were to employ a sensible female-servant, who is not yet initiated in the prejudices of the vulgar; while they might themselves superintend the nutrition of the child. From the usual qualifications of nurses, I am inclined to predict, that neither the satisfaction of parents, nor the happiness of their progeny, are properly consulted. Women who commonly devote themselves to that important office, are in general equally old in years and prejudices, indolent,

lent, and heedless; so that the most judicious mother will at length, tired by perpetual resistance, reluctantly connive at their absurd practices.

Impressed with the truth of the preceding remarks, I maintain that education ought to be exclusively conducted by parents, provided that they are qualified for the task. No aunts, uncles, cousins, or grandmothers, should be suffered to interfere in this weighty concern; because they have seldom acquired enlightened ideas on that subject; or, being of an irritable temper, they spoil children by the fluctuations of whim and caprice; by treating them at one time with unbounded tenderness, at another with severity, then again loading them with presents and flattery; next, they wish to bring them up agreeably to their own notions, or as it was customary about half a century ago, when the physical education of youth was but imperfectly understood. Grandmothers are often anxious to see the little girls dressed in garments resembling their own: they insist on keeping them warm, because they are obliged to defend themselves with clothes, at their advanced age. In justice, however, to many excellent granddames and aunts, I must allow that they possess a sufficient share of understanding, not to concern themselves, more than is absolutely necessary, with the education of their young relatives, and that they have a degree of candour equal to their conviction, to admit and adopt new improve-

ments,

ments, if these are superior to former customs, or promise to be attended with good effects.

In the first steps of human education, there are many circumstances, apparently trifling, which, nevertheless, are of the greatest importance; so that the life of the infant is frequently endangered by neglecting them. Hence the female world appear to be exclusively designed by Nature for this office of humanity. The penetrating eye of the mother will not easily overlook whatever appears to be necessary to the comfort of the infant; and the most distant hint is often sufficient to excite her attention to the situation of the child, to the hurtful practice of warming the pap, &c. I believe, therefore, I shall in this Treatise render an essential service to mothers, by entering into a variety of particulars, abstracted from experience in the treatment of my own children, and of the importance of which I am fully convinced.

But I by no means wish to insinuate, that the troubles and cares of education, during the first period of life, should be *exclusively* imposed upon mothers; nay, fathers ought also to be seriously concerned in the first treatment of their offspring, and not to burthen their weak partner, as is too much the case in the present day, with the general hardships and inconveniencies of the nursery. No father, who is proud and deserving of that name, will plead the difficulties of complicated official engagements, with a view of withdrawing himself

entirely

entirely from the company of his children; for the examples of a CATO, an AUGUSTUS, a MONTAIGNE, and the elder RACINE, are truly worthy of universal imitation. Both parents ought, therefore, to participate in the management of their infants: and thus the ties of mutual affection and harmony will become every day more firmly cemented, and indissoluble.

GENERAL PRINCIPLES OF EDUCATION,

APPLICABLE TO THE FIRST YEARS OF INFANCY.

WHOEVER wishes to educate children in a judicious manner, and to render them truly happy, should previously reflect on the best method of conducting that office. He must adopt certain maxims which may guide his judgment, so that his exertions may be crowned with success. I shall proceed to explain a few of these principles, as far as they relate to the first steps in education. According to different situations and circumstances, the reader will easily discover the supplementary rules necessary to regulate his conduct.

1. Resolution and perseverance are requisite, to enable us to practise not only what we acknowledge to be proper, but also to follow the suggestions of sensible persons, in spite of the prejudices and opinions of the multitude. Many a tender mother is convinced by the example of others, that her children require a different treatment from what is usually pursued; but, being deterred by the reflections and censures of her neighbours, she continues in the common routine, even against her own conviction. An extraordinary courage is frequently required in the female mind, to oppose

oppose prejudices, as well as the incessant intrusions of grandmothers, aunts, and old gossips. Yet, if supported by her husband, she will not suffer their garrulity to lead her into error, nor permit any thing to warp the dictates of her own reason, when aided by the judgment of her bosom-friend. Let us, for instance, balance the happiness of children with the interest of their dearest relations, or even of fond but misguided parents; the congenial feelings of maternal affection will readily determine the point. I am well aware that good mothers are frequently placed in distressing situations, when they endeavour to act according to the dictates of their improved judgment. But the affection towards their children will support them, if necessary, to make an important sacrifice. Unshaken constancy, and adherence to their own maxims, will soon overcome their difficulties; and though friends may for some time intrude their advice, and attempt to undermine such principles, yet, by acting in a steady and consistent manner, their efforts will ultimately prove ineffectual. Time is the best criterion of their cause; and after the lapse of a few years, they will be enabled to present their antagonists with a view of healthy and sprightly children, the best demonstration of the superiority of their system.

2. Let us preserve a certain uniformity in the management of children. It is absolutely necessary to adopt some plan of education, and to direct all

all our endeavours to a systematic purpose, as the contrary must be partial and detrimental. Many parents, for example, train up their children to endure hardships; they expose them to the inclemency of the weather, and afterwards envelope them in debilitating feather-beds: thus they make a sudden transition from one extreme to another. Having hitherto treated their children with extreme delicacy, and confined them in the mephitic vapours of a nursery, they now learn that a more hardening process ought to be pursued, and imprudently compel them, half dressed, to encounter the vicissitudes of cold, heat, rain, &c. This indiscreet change occasions many dangerous infantile diseases, but particularly consumption. It might, indeed, be better for many parents, if they had not perused any strictures on education, as they do not know how to apply with advantage the information derived: others, on the contrary, have read too great a variety of works on this subject; and the diversity of opinions confounds their judgment. In the plurality of cases, it would be more advisable that parents should regulate themselves only by one judicious treatise, and occasionally avail themselves of the advice of an experienced physician.

3. Education ought not to be rigorously enforced, but rather adapted to the gradual path of Nature. The great art of educating children, consists in the knowledge of promoting and developing the human

human powers. The present work relates to the management of children during the first period of life, namely, from their first to their sixth year. At this age, the physical treatment of the child deserves peculiar attention. But certain it is, that while we are employed in cultivating the bodily faculties of a child, we at the same time unfold its mental capacity. On account of the consequences resulting from a proper cultivation of the latter, the intellectual part of education is of extreme importance. In order satisfactorily to attain this end, it is necessary not only to watch the gradual expansion of the infant faculties, but also to manage children consistently with such observations.

Without repeating those remarks which may be made by every attentive mother on the progressive improvement of her child, I request all parents to observe their children with the most minute attention*; for by this means they will be enabled to ascertain the best method of treating them conformably to the ordinations of Nature.—As the developement of children advances with gigantic steps, every effort to accelerate it must be highly pernicious. The great art of protracting the different periods of human life, may be learnt

* It would be of great advantage, if persons to whom the education of children is intrusted, but especially mothers, were to enter the remarks made on the progress of their children, in a book kept for that purpose: by such means, they would attain a more distinct view of infantine nature.

from

from the writings of ROUSSEAU. If the simple path of Nature be calmly followed, a child will certainly not become the premature object of admiration; nay, it will even be surpassed by many children of a similar age, who, according to their manner, speak and walk at a much earlier period; but the time spent with tardy children is only an apparent loss. It is therefore more advisable to complete the instrument previous to its use, than to employ it in an unfinished or imperfect state. Every exertion, either of mind or body, before the organs have attained their proper firmness, is equally dangerous and precarious. It is obvious, that such premature attempts must be partial and defective. Admitting that children reared like plants, by an artificial method, will walk and speak at a very tender age, yet such exhibitions are productive of no lasting advantage.

4. Attention should be paid to the spontaneous developement of infantile faculties, without resorting to compulsive means. It is a principal fault committed in the usual systems of education, that children are rendered entirely dependent on the assistance of others, and are thus prevented from investigating and applying their own powers. In the first period of life, the human creature stands in need of continual assistance; but we should not consider it as a mere involuntary machine, or as a body destitute of reason. All voluntary exertions of the different powers, are in a manner

designedly prevented, from the birth of our children. Thus the body is unnaturally straightened by lacing and swaddling clothes; the child is confined in walking machines, or led by strings; and the nurse incessantly assaults it with her garrulous voice;—all these attempts, however, militate against the intentions of Nature. Let us therefore proceed on the contrary plan, and release the poor infants from this painful constraint; and we shall soon perceive with pleasure, how adroitly they can employ their tender limbs, which Nature has furnished for a more liberal purpose. Such indulgence will not easily be attended with danger; as children will frequently, in an astonishing manner avoid injury, when others unaccustomed to liberty, scarcely know the use of their limbs, and hurt themselves on almost every occasion. In consequence of this unpardonable restraint of the body, the powers of the mind also become contracted, and their developement is either impeded or retarded. Necessity obliges children habitually to exercise their powers. Whatever a child can do by its own efforts, it must be permitted to perform without assistance. For the small degree of exertion employed by it, never fails to call forth additional powers, which would otherwise have remained inactive.

5. Children should be nurtured with maternal affection, without spoiling them, or increasing their wants. Even kindness may be carried to excess: the

the most tender mother is often misled, unintentionally, to commit faults which may injure her child. Fondly wishing to remove whatever may produce pain or uneasiness, she does not reflect that many of these hardships are conducive to the child's complete developement. All endeavours to avert such sufferings, only render them more intense, and are consequently prejudicial. If parents could be persuaded, that in such cases the effect will be contrary to their expectations, they would more frequently listen to medical advice. For it cannot be denied, that afflictions arising from physical causes, are more easily supported than those of a moral origin. ARISTOTLE justly observes, that children ought not to be prevented from crying, as it is an useful exercise to the body, and tends to expand the breast. Cries proceeding from hunger or pain, may be easily distinguished from those of peevishness or caprice.

Too great anxiety displayed in the treatment of children, is the most certain means of increasing their wants, of rendering them more troublesome, and of eliciting their desires and claims; so that the office of education becomes progressively more difficult. It is commendable to accustom children, at an early period, to dispense with those things which are not essential to their welfare; for the want of whatever is unknown to man, occasions no reluctance. A child who never experienced the luxury of a feather-bed, will sleep

perfectly easy on a hard, though more healthy mattress. This observation applies to all unnecessary objects, which become desirable only, after we have been habituated to their use.

6. Mind and body ought to be preserved in a due equilibrium. The intellectual powers should not be exercised to the detriment of the body, nor the powers of the latter be employed to the disadvantage of the former. Let us follow the path of Nature, who developes both in a reciprocal proportion. But if we exert the mental faculties at too early a period, the child will become a victim of disease and misery. On the contrary, if the body alone be attended to, the mind will be retarded in its progress. Hence the understanding of the child must be improved in the same degree as the strength of the body increases; for the body is the instrument of the mind. A diseased and debilitated frame contributes to produce many incoherent ideas, and gives a wrong bias to man, as a moral agent. The developement of bodily powers forms a guide for the cultivation of reason; so that the great art of education, consists in maintaining this mutual relation between body and mind. During the first period of life, which HEUSINGER justly calls the period of *sensibility*, our chief object ought to be directed towards the improvement of the physical powers; as, in this manner, the mental talents are most effectually unfolded. These, it will appear from the

the following illustrations, are not disclosed by any premature exercise of the memory, but rather by a due employment of the senses, the faculty of observation, reflection, &c.: thus only Nature will be advantageously supported in her operations.

If mothers should not be acquainted with the proper method of attending to the intellectual progress of their children, it would be more advisable entirely to relinquish this dangerous attempt; to bestow every care on corporeal improvement, and to preserve the body in perfect health. Though they should be altogether ignorant of that precarious mode of instruction adopted with children, at the tender age from the fourth to the sixth year of their lives, it would be more conducive to their happiness, to intrust the developement of their mental faculties to Nature alone; who, provided her operations be not controlled, will require no artificial aid.

7. Children, from their earliest period of life, should neither be kept too warm nor too cold, but in a mild and equal temperature. The ancients placed their infants in vapour baths, and treated them like exotic plants in hot-houses: the moderns carry the opposite treatment to excess; but both methods are equally pernicious. Too warm a treatment weakens and relaxes, while it disposes the fluids to a sudden contamination. Children are in a continual state of insensible per-

spiration, and therefore in greater danger of contracting colds: every breath of cool air threatens to injure their perspiratory organs; they become diseased, and afflicted with cutaneous eruptions; because in a relaxed skin, the morbid matter is often suddenly repelled towards the interior parts. Hence arise convulsions, epileptic fits, apoplexy, diarrhœas, and spontaneous vomiting. In short, such an unnatural practice reduces infants to a very precarious situation, renders them susceptible of every epidemic contagion, and lays the foundation of dangerous, and often fatal disorders. In a future part of this work, I propose to enlarge upon the pernicious consequences that result from keeping children too warm.

With respect to an extravagantly cold treatment, however, parents cannot be too cautious; as many are led into error by the spurious arguments of modern writers on education. The violent stimulus of cold causes stagnations, and contraction of the capillary vessels; renders the skin and fibres rigid, and induces premature old age. By an imprudent exposure to cold, children become pre-disposed to scrophulous and even gouty complaints. I know a female, now suffering under the most excruciating rheumatism, who in her youth was obliged to endure extraordinary cold, to sleep in a garret during the severest seasons, and to sit for hours at a time, very thinly clothed, in the kitchen. Her fibres became

hard

hard and tough, and she acquired a very irritable constitution. Yet I conceive it necessary to remind mothers, that I allude here only to an *excessive* degree of cold. In the sequel, I shall point out the most proper medium between the two extremes.

8. Endeavour to harden the body, but without resorting to any coercive means. Before the human frame has acquired a settled constitution, it may more easily and safely be habituated to external impressions; for, at a later period, every sudden change might be attended with dangerous consequences. A child is constitutionally weak and irritable to a high degree: hence we should endeavour to strengthen and diminish this irritability, in order to procure it the greatest happiness of life, a firm body, which may resist all the influence of air and weather. Such a management is highly advantageous, as it will enable children, when adults, to support every species of fatigue and hardship.

The plan of hardening children may, however, be easily carried to excess, especially if we are misled by the advice of pedagogues, who are not sufficiently acquainted with the physical nature of the human frame. An extravagant method of strengthening youth, deprives them of their natural susceptibility of excitement, renders them insensible, and produces all the bad effects before mentioned: they acquire only a temporary energy,

which decreases as they advance in years, and is attended with an early loss of their premature vigour. Parents, therefore, cannot be too seriously cautioned against such mischievous experiments, though they are anxiously recommended by modern authors: good mothers are entreated to peruse their works with circumspection.

Among the practices before alluded to, are principally included the cold bath, and violent bodily exercise; both of which are often carried to extremes. People do not reflect, that the exertion of the bodily as well as the mental powers, ought not to be inordinate. They have been justly warned against excesses committed with respect to the latter, while similar irregularities still prevail in the exercise of the former.

Attention should also be paid to the state of the child's body; as feeble children require the greatest precaution in habituating them to external impressions.

All attempts to render children hardy, must be made by gradual steps. Nature admits of no sudden transitions. For instance, infants should by imperceptible degrees be inured to the cool, and then to the cold bath; at the same time, attention must be paid to their previous management. If they have hitherto been accustomed to an effeminating treatment, and should be suddenly subjected to the opposite extreme, such a change would be attended with danger.

Lastly,

Lastly, from what has been already observed, it is evident that when children have once been accustomed to a hardy system of education, such a plan must be strictly adhered to.

9. All violent impressions on the senses and the body of children, ought to be carefully avoided. It is injurious to toss them about with rapidity in the arms. Loud crying, or shouting in their ears, discharging fire-arms, presenting glittering objects to their view, as well as sudden, and too great a degree of light, are equally injurious. Thus infants are frequently stupified and affrighted; the brain is shaken in the most detrimental manner; and hence arise the most distressing consequences. On such occasions, we cannot bestow too much attention to the conduct of wet-nurses, or servants.—I knew a simple man, who resorted to the absurd practice of placing himself over the cradle, and making a horrible noise, with a view to intimidate, and silence the crying infant. A child, however, ought to enjoy the most perfect rest and composure, if it be our wish to promote sound sleep, regular growth, and its consequent prosperity.

It is equally detrimental to both mind and body, when infants are continually carried about on the arm of the nurse, teazed with loud soliloquies, prayers, or other mechanical prattling; and especially when they are incessantly provoked to display their anger or revenge. Such conduct is necessarily

necessarily attended with pernicious effects, while it prevents the spontaneous expansion of infantine powers, blunts their senses, and is ultimately productive of nervous and muscular debility: a proof how imperfectly we are acquainted with Nature, and how little we are accustomed to reflect that the tender nerves of children must experience a violent stimulus from impressions, to which an adult may be habituated, or which do not sensibly affect him.

10. The bodily education of boys and girls ought in every respect to be uniform. A great difference usually prevails in the education of both sexes during infancy; a distinction which, unfortunately, is the offspring of prejudice, and on that account, female children are cruelly neglected. Parents, being too anxious for the accomplishment of girls, imagine that they must be kept under a certain restraint. Boys, in general, are not laced, but poor girls are compressed tight enough to suffocate them; because it is erroneously supposed, that this injudicious practice contributes to an elegant shape, though, ultimately, the contrary effect is obvious; as it is the surest way of making children round-shouldered and deformed. Girls are, from their cradle, compelled to a more sedentary life; and, with this intention, dolls, and other play things, are early procured; yet boys are permitted to take more frequent exercise. Thus, girls are confined in their apartments,

ments, while boys amuse themselves in the open air. Such absurd constraints impede the free and progressive evolution of the different faculties inherent in the human mind. If, therefore, it be our wish to educate healthy wives and happy mothers, it is indispensibly necessary to treat the female sex, as well as the male, in a manner equally consistent and rational.

ON THE

CONDUCT WHICH OUGHT TO BE OBSERVED BY PREGNANT WOMEN,

WITH RESPECT TO THEIR CHILDREN.

PHYSICAL education, properly speaking, commences from the pregnancy of the mother. On account of the remarkable and intimate connection between the child and its parent, every change which takes place in her bodily constitution, and every circumstance that affects her, inevitably manifests an influence on the child in embryo; for her passions as well as her diseases are inherited by the latter. Although pregnant women may not, for their own sakes, be inclined to pay due attention to their diet and regimen, yet the affection towards their offspring should induce them carefully to avoid whatever might prove injurious, or even dangerous to the life of their maternal pledge. A woman may be called a mother, not only from the birth of her child, but even from the moment of its origin: from that important epocha her duties commence; duties the most sacred and dignified, that are imposed upon her by Nature. This early period of her pregnant state ought to be employed, by herself as well as her

her partner, in preparing for the future education of the child. In short, they ought to make themselves acquainted with just principles relative to its early treatment, and concert a regular plan, which they propose to carry into effect. As the primary arrangement in this respect is chiefly incumbent on mothers, they should therefore peculiarly devote themselves to that pursuit. If they have not fortified their mind with solid maxims, how will they at a future time be able to withstand the importunities and persuasions of prejudiced persons? Worthy mothers, who have the welfare of their progeny at heart, and hope to enjoy the inexpressible happiness of beholding them healthy and chearful, should usefully employ the period of pregnancy, in order to learn what may most effectually conduce to the attainment of that object.

From the sound principles which they may acquire during that interval, the greatest advantages will be derived, when they stand most in need of them. Among the diversified cares, sorrows, and occupations, which are connected with the nurture of infancy, it may be frequently too late, and even impracticable, to form a systematic plan. Instead of wasting time with speculative studies, we ought to compare the principles already adopted, with the experience and observations of others. A parent who is not sufficiently prepared, will be misled, even against her own inclination

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and better judgment, by the indiscreet and prejudiced persons around her: these are anxious to follow the prevailing custom, and to introduce their own practices, however absurd, into every family.

Healthy women need not observe any particular diet during their pregnancy. It would, however, be advisable to pay minute attention to their bodily state in general, and their situation in life; in short, to every circumstance which may tend to injure the fœtus: those who are subject to disease, or otherwise debilitated, should avail themselves of medical advice.

It is customary among pregnant women to call in a midwife, with a view to consult her respecting the management they ought to adopt. If they are fortunate enough to meet with a judicious person, they may obtain from her wholesome advice on particular occasions; though they might be no strangers to the general maxims for regulating their conduct; for it is a melancholy truth, that many females, from a false delicacy, would rather apply to an ignorant midwife, than consult a medical man. But as superstitious and prejudiced people every where abound, it would be more prudent, if pregnant women were to procure the information relative to their state, either from a physician, or by reading an appropriate book, than to trust their fate to such precarious counsel.

A competent knowledge of their duties will enable them to institute an early examination of the

the midwife, whether she has acquired just principles of her profession, or whether she is addicted to prejudice and superstition. Thus only the skilful professor may be fairly distinguished from the bold pretender.

The principal duty of a pregnant woman consists in attending to the gradual and complete formation of her child. She ought, therefore, in the most careful manner to avoid every constraint, and whatever may agitate her mind or body. Of this nature is the unnatural custom of wearing tight and cumbersome clothes, such as laced stays, a number of heavy petticoats, and high shoes; all which are the productions of tyrant Fashion, and tend to impede the free developement of the fœtus, as well as to render delivery more difficult. Women not entirely destitute of moral feelings, will, upon the least reflection, allow that it is unnatural to compress with violence those parts which progressively increase in size. Thus the circulation of blood in the abdomen is impeded, the nourishment of the fœtus prevented, and premature births are frequently occasioned. Hence also, those parts which have suffered from constant pressure, become debilitated, and incapable of cooperating at the important period of delivery; the cavity of the pelvis becomes contracted; so that the passage of the child is endangered, the labour rendered more painful, and all the operations of Nature retarded. Throughout Syria, the use of

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stays is altogether unknown; and it is perhaps for this reason that child-birth there is remarkably easy. Pregnant women should also avoid wearing a number of heavy petticoats, which depress the abdomen, and may bring on a bad situation of the fœtus. Long dresses are likewise improper, as they may easily occasion the falling of the wearer; nor should the stays of pregnant women contain any whale-bone. To guard against the accidents above-mentioned, M. Josephi advises them to suspend their petticoats by means of peculiar braces, or strong woollen bandages drawn over their shoulders. Much benefit might also be derived by the use of a roller, as described by Professor Osiander; which warms and supports the body, prevents an improper situation of the fœtus, and is attended with many advantages in every stage of pregnancy, as well as during and after delivery. Shoes with high heels ought to be abandoned, because they not only increase the danger of falling, but contribute to a very inconvenient and unsafe posture of the body; while they tend to protrude the abdomen, to bend the spine inwards, and may be productive of a position detrimental to the fœtus. I presume to hope, that no mother who may happen to peruse this book, will forget the duty she owes to her child, and rather endanger its life than renounce the follies of fashion, in the important article of dress: no friend of humanity would approve of the conduct of those

those votaries of pleasure and caprice, whose heads and hearts must be equally corrupted.

Nothing is more injurious to a pregnant woman, than violent agitation occasioned by depressing passion, such as anger, fear, terror, or grief; by which the tender fruit of the womb easily miscarries, or if preserved, is feebly and insufficiently nourished. The consequences resulting from such mental perturbations often are, alarming hemorrhages, violent convulsions, and even consumption; misfortunes which likewise operate immediately upon the infant in embryo: hence, the more quiet and free from care a woman remains during her pregnancy, the more successful will be her delivery. Every object of a disagreeable nature must be removed from her sight; nor should relations, servants, or visitors, be suffered to entertain her with dismal or frightful stories. Midwives who are fond of reciting such anecdotes, especially if they relate to difficult births, should be without hesitation dismissed, as imprudent and useless persons, who are unfit to exercise the duties of their profession.

The apprehension of marking the child, is particularly injurious to pregnant women: such fear is without foundation, and is the offspring of the grossest superstition. Although the ancient physicians almost generally countenanced this singular prejudice, yet their doctrines have been amply refuted by experience. An idea so fanciful, and

unsupported by reason or truth, ought by no means to be propagated; though many imprudent midwives avail themselves of this vulgar method of terrifying those, whose imagination is susceptible of the strongest impressions. For it is well ascertained, that neither masks nor other objects of terror, however violent and lasting their impression had been during the period of pregnancy, were attended with serious effects; as the mother nevertheless produced a child completely formed. It is also absurd to imagine, that any particular change or impression will take place in the fœtus, if the mother should accidentally experience any particular sensation, or feel an irresistible propensity to indulge her fancy on such occasions. I here allude to what are called *marks*. It is truly ridiculous to believe, for instance, that a pregnant woman, on seeing a man with a deformed nose, at whose appearance she is terrified, will bear a child with a similar feature; or if she be frightened at an alarm of fire, and should then touch with her hand any part of her body, such as the forehead, that the child will be marked accordingly.

The influence of the mother's imagination on the child, or at least the probability of such sympathetic agency, cannot however, in general, be denied. It is proved by observations, that the mother has a greater share in the formation, shape, and beauty of a child, than the father; consequently the power of the imagination on its orga-

organization may be admitted, but only in a degree so limited, that the operations of Nature are thus neither interrupted nor changed. The ancient Greeks were well persuaded that this *general* influence really prevails. Hence, pictures of the most beautiful youths, taken from the mythology of their divinities and heroes, were exhibited in their apartments; in order to excite the powers of the fancy, which, in the opinion of the Ancients, would make a happy impression upon the fœtus, by the representation of elegant forms: among these, were the figures of APOLLO, BACCHUS, CASTOR and POLLUX, ANTINOUS, NARCISSUS, and others. Whether the Grecian ladies, in this respect, acted from chimerical principles, or whether their example is worthy of imitation by our fair countrywomen, I will not attempt to decide. It might no doubt be attended with a good effect on the germinating fœtus, if women would frequently amuse themselves with the contemplation of beautiful forms and figures: such agreeable views should be purposely afforded, especially to a female *connoisseur*, even though no other advantage should be derived from them, than what arises from calm pleasures and placid sensations. An observation of NICOLAI will give considerable weight to my assertion: this sagacious traveller, when visiting the Roman Catholic provinces in Germany, took notice of a variety of female countenances divinely beautiful, especially when en-

gaged in devout exercises. I am therefore induced to repeat my opinion, that no effect of the imagination on *particular* parts of the body, can be maintained with any degree of probability.

Consistently with these observations, it may be safely maintained, that terrifying narratives, on account of the circumstances which are usually added by those who repeat them, deserve little or no credit. For, if a child be born with a mark, or any other deformity, the mother then only recollects some striking accident, by which she was frightened during her pregnancy. It would indeed be extraordinary, if, in the course of nine months, no circumstance should have occurred, to which the mark of her child might be attributed: thus, on the death of a valued relation, his friends generally remember some singular omen which happened previous to his decease. Such is the uncertainty prevailing among prophets and dreamers! In general, however, the power of imagination upon the child in embryo, cannot be *entirely* denied; as it may be productive of certain impressions affecting the form and shape of the fœtus.

Pregnant women ought to avoid every kind of agitating exercise, such as riding in carriages with rapidity on uneven roads, dancing, lifting or carrying heavy loads; in short, all masculine and fatiguing employments whatever. Travelling in a convenient carriage will not be hurtful, especially

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if an additional cushion be placed on the seat, to relieve the jolting motion. Connubial privileges, though a temporary renunciation of them should frequently require considerable resolution, must be used with the greatest moderation. Every kind of commotion, as well as muscular exercise when carried to excess, may easily occasion hemorrhages, and check the progress of Nature.

Not less prejudicial to health, is the custom of attending divine service, shortly before the period of delivery; as women are then subject to continual and inexpressible anxiety, arising from the apprehension of being taken in labour.

On the contrary, an excessive effeminacy is equally injurious, as it originates from an indolent mode of life; long continued sitting, particularly in damp apartments; want of fresh air, or too warm an atmosphere produced by over-heating the rooms; immoderate covering of the body; and the vapours of charcoal, which are extremely hurtful to the lungs. Many a pregnant lady will scarcely venture to put her foot on the ground, and trembles at the idea of a miscarriage; she anxiously consults her physician on every trifling occasion, or the slightest change of the air: thus she deprives herself of the necessary ease and serenity of mind, which has an essential and beneficial influence on her own health, as well as that of her child. Frequent and gentle exercise in the

open air, and domestic occupations which require moderate exertions, are much to be recommended.

With respect to food, I would not advise pregnant women to make an essential difference; but I must warn them against excess in eating and drinking, and particularly against spirituous liquors, much coffee, spices, and hot soups. Ladies in such a situation, generally conceive that they should eat in the proportion of two persons, and therefore load their stomachs with food. Hence, during the last period of pregnancy, they are subject to numerous complaints, such as a continual sickness, vomiting, head-ach, heart-burn, and costiveness; while the accumulation of impurities in the alimentary canal, contributes to the difficulty of labour.

Many women consider most of the complaints with which they are afflicted during pregnancy, as the natural consequences of their state, though these in fact proceed from their own improper conduct, that is inimical to health, and ought therefore to be avoided.

All food of a wholesome nature is the more easily digested, if sufficient exercise be taken, and free air enjoyed as much as possible; but this end is particularly promoted by a serene state of mind.

The best drink for pregnant women is pure water; next to this, I would recommend a well-fermented

fermented beer, whey, or butter-milk, particularly in costive habits.

As pregnancy advances, the woman must endeavour to prepare herself for the principal duty of a mother, that of suckling her own child; provided it can be accomplished under the conditions before mentioned. Were it only for the successful performance of this duty, stays ought to be abandoned; because the nipples become compressed by their use, so that at length they almost entirely disappear.

The breasts should be timely prepared for the performance of the maternal office; for which purpose the following expedient, according to the advice of Prof. OSIANDER, may in general be adopted. The indurated scarf skin, with which the breasts are covered, must be daily washed with soap and luke-warm water, which will gradually render it more pliable, so that it may be gently removed with the finger, or by means of a blunt knife, or still more safely with a piece of card. When the old epidermis is cleared, the new skin must be strengthened, that it may not become sore from the suction of the child.

To accomplish this desirable effect, some fine rags should for several days be placed upon the nipples, having previously been impregnated with good wine or spirits of lavender, or with pure brandy, in which a quantity of white lily and rose leaves, in a fresh state, have been steeped.

If the nipples are sunk in the breasts, they must be drawn out with glasses purposely constructed: when this is effected, a couple of small cases, made of lime-tree, and dipped in virgin wax, should be placed over them; but nut-shells, or other hard substances, are improper substitutes.

When the nipples appear to lie too deep in the breasts, they ought, previous to delivery, to be attracted by the means above described. But if glasses be not at hand, a Dutch clay tobacco-pipe of a large size may be substituted; the bowl of which being placed on the nipples, and the air drawn out, they will thus be restored to their proper situation. After the nipples are raised by repeated suction, they may be covered with a ring made of gum-elastic. But if this process be expected to succeed, it should be performed in the earliest period of pregnancy.

No pregnant woman, who has any regard for herself and child, will take either medicines or domestic remedies, on the suggestion of the midwife, without previously applying for medical advice: drastic purgatives, violent diaphoretics, or other means of promoting parturition, when administered by unskilful hands, have destroyed many mothers and children; nor will a sensible person send for medicines to a druggist's shop, or purchase them from vagrant mountebanks, but on every occasion consult her professional attendants.

Many

Many erroneously imagine, that blood-letting is useful during pregnancy: hence, mercenary bleeders, and imprudent midwives, contribute to support that ill-founded opinion. It is however certain, that venesection is a remedy, which ought not to be resorted to without the greatest precaution, as the loss of blood may precipitate a pregnant woman into many dangerous diseases, and even occasion a miscarriage. Instances of this nature have occurred in my own practice; and I have known ladies, who have unfortunately been subject to successive abortions, because, by the advice of their friends, they regularly submitted to be bled on such occasions. On their becoming pregnant again, I warned them of the mischief resulting from this practice; and they now enjoy the happiness of being mothers. Though neither the advice of a midwife nor any illiterate person ought to be followed, in this respect, yet it would be proper to consult a physician, whether bleeding be necessary; as, in some instances, this simple operation may preserve the fœtus, and protect the mother against many accidents, to which she is liable in consequence of her peculiar situation.

ON THE

TREATMENT OF A CHILD, FROM THE PERIOD OF ITS BIRTH.

THE full period of pregnancy having arrived, the woman is seized with pains of labour. Scarcely has a minute elapsed, when, to her utmost astonishment and extacy, she perceives that the delivery is accomplished. She beholds in her lap a lovely full-sized infant, fresh as the morning rose.

> Sweet intercourse
> Of looks and smiles: for smiles from reason flow,
> To brute denied, and are of love the food.
>
> MILTON.

With the most delicious sensations she gives the first proof of her maternal affection.

Thus the babe is brought into the world, and announces its existence with a cry. To facilitate the penetration of air into its lungs, the midwife should introduce her fingers into the child's mouth, and clear away the slimy matter which adheres to it: this is particularly necessary when the infant has the rattles in its throat. Her next operation is to tie and cut the navel-string, when the umbilical vessels have discharged their blood,

pulsation

pulsation has ceased, and after the umbilical chord has been cleared of its contents, by squeezing it towards the after-birth : this, however, is not done with a view to obviate the small-pox, as has been erroneously asserted even by medical writers, but to prevent the fetid smell of the navel-string, and to promote its separation.

If the child be apparently still-born, or extremely debilitated, the following are, in general, the most obvious symptoms; namely, a collapsed and pale countenance, blue lips, and flabby dependent limbs; the consequences of a suspension of the vital powers, but seldom of apoplexy, which manifests itself by a red and bloated face, prominent eyes, and large livid spots upon the skin; sometimes, indeed, a degree of warmth is felt upon the body, and a pulsation may be perceived at the umbilical artery. The child should be placed in a moderately warm bath; its mouth and nose cleared of the adhering viscid matter, by a piece of rag wrapped round the finger; a person should then blow air into its mouth, without closing the nostrils, and at each inflation the breasts should be gently raised, by compressing the sides. The blowing, however, must not be too violent; for, as soon as the child begins to breathe, though but faintly, it should be performed progressively weaker; and when it respires freely, this process must be discontinued. Cold water alone, or mixed with a small quantity of wine, should then

be

be slowly dropped, from a certain height, on the pit of the stomach, or the child may be sprinkled with a syringe. After each affusion, the infant should be wiped with a warm piece of flannel, its stomach gently rubbed with the open hand, and then covered with warm cloths: having applied these means with due precaution, the tender infant ought to rest for some time on the lap of the nurse. If no signs of life yet become manifest, this experiment should be repeated; the tongue may be rubbed with a few grains of salt, and clysters composed of oil, salt, and water, should without delay be administered *.

The

* With regard to strong-scented substances, it deserves to be remarked, that, in general, bruised onions or garlic, or volatile salts, may be held to the nose of the infant without danger; if they be applied with due precaution.

If the child exhibit signs of life, by moving its jaws; if the lips become red; if it open its eyes, or breathe freely, the means above-mentioned must be more gently and cautiously applied. Should the after-birth be immediately discharged, it ought to be put, together with the child, into a bath, and its body may be rubbed with somewhat increased strength; but the umbilical chord must not be cut till the child has recovered its vital energy. Substances of a pungent taste ought by no means to be used; though, if the infant be able to swallow, a few drops of wine may be administered; but if its throat rattles, and abounds with mucilage, a tea-spoon full of honey of squills may be given, as well as clysters composed of wine and water. No children that are still-born, ought to be considered as really dead; for, in most instances, they

may

The midwife should carefully examine the body of the child, whether any defect or mal-conformation be discoverable, in order that a physician may be timely consulted. She should also pay particular attention that it may not suffer from cold. Immediately after its birth, it ought to be wrapped in warm cloths, or placed in a warm bed; for too cold a method of treating infants, is the cause of many diseases; and in consequence of such mismanagement, many a child does not thrive, but remains feeble during life. Nay, the midwife must not neglect the child, by paying too great attention to the mother; the latter should be intrusted to the care of another person, while the midwife is employed with the former. When the infant is conveyed to the bath, care must be taken that the water be only luke-warm. In most cases, except when the child is extremely debilitated, pure water is preferable; but if wine be added, the quantity should be small, lest it stupify the infant. Violent friction, in order to clear the child of viscid humours, is injurious; as the tender skin may thus be made sore, and even inflamed. The least hurtful method that can be adopted, is that of drawing the remainder of the navel-string towards the left side of the child's body.

may be restored. I would seriously recommend this passage, relative to the first treatment of new-born infants, to be laid before the midwife, immediately after her arrival, in order that she may, in case of necessity, derive from it proper information.

On

On no account should the roller be bound too tight over the navel; it ought to remain in such a state, that a finger may be easily introduced under it: the infant's clothes should also be as free as possible from pins.

When the child is undressed, the remaining piece of the navel-string must by no means be pulled, because it may readily be torn off, and the child bleed to death. Sometimes the vessels of the umbilical chord, which before were distended with blood, will collapse, the bandage become loose, and the life of the babe be endangered by excessive bleeding; the state of the roller must therefore, from time to time, be carefully examined.

The midwife should not continue the use of the bandage, after the remainder of the navel-string, which is separated by the ligature, has been entirely discharged. If this circumstance be not attended to, such neglect may easily occasion a rupture. The divided part of the umbilical chord will spontaneously drop away, like a dry leaf, or the stalk of a ripe apple. All petty artifices therefore, to accelerate this separation, are entirely superfluous; because the same effect would take place by the efforts of Nature, even though no ligature were employed for the purpose*. Prof.

* *Ueber die Ursachen und Verhütung der Nabel und Leistenbrüche; eine Preis-schrift.* On the causes and preventive means of umbilical and inguinal ruptures; a prize-essay. Frankfort on the Maine, 1797.

Söm-

SÖMMERING has satisfactorily demonstrated, that most ruptures in the region of the navel, and in the groins, proceed from the above practice of binding the umbilical chord too tight.

Let us now suppose the infant to be properly swaddled, but in such a manner that the belly-band is drawn loosely round its body, while the arms and legs remain at perfect liberty, and the free motion of the child be in no manner impeded. All folds in its dress should be avoided, lest the child be pinched by them: and after being thus managed, it may be invested with a shirt.

Whoever has the love of a child at heart, will not suffer it to be dressed or swaddled too tight; as nothing can be more injurious: but I intend to speak farther on this subject in the sequel. Meanwhile, I entreat every mother, who is anxious about the welfare of her progeny, to pay the most scrupulous regard to the above point, and reflect with the greatest attention upon every circumstance which I shall state, relative to the prejudicial effects of tight dressing and swaddling.

It is customary to present a mother with her infant, in the lying-in bed. Although the inexpressible happiness of beholding her beloved babe upon her lap, ought by no means to be denied, yet it must not be permitted to lie the whole night at her side. Some person should sit up in the room; and, as soon as the mother falls asleep,

remove

remove the child; for, if neglected, it may be exposed to the danger of being overlaid; a misfortune which not unfrequently happens. The little basket proposed in FAUST's *Catechism of Health*, cannot be recommended; because the child, when placed in it, and kept by the mother in bed, may easily fall out, if she, or the nurse, while giving it the breast, should happen to dose.

There is a custom which almost universally prevails, namely, that of administering to children some medicine in the form of a julep, in order to carry off the *meconium*; for this purpose a preparation of rhubarb is generally used, a tea-spoon full of which is given at intervals. I am also persuaded that this first evacuation is necessary, and should not be postponed, lest the child might be afflicted with pains in the bowels, or even convulsions. A tea-spoon full of that remedy may be given to the infant every third hour, during the first and second days of its life. If rhubarb should not be preferred, a tea-spoon full or two of the honey of squills may be substituted. By such means, children will more readily take the breast, and suck with greater eagerness. In short, the discharge of the meconium is a certain mean of preservation.

Nothing, however, can be more absurd than the superstitious practice of giving solid food to children, before they are carried to the baptismal font: and these morsels are generally of a crude

and

and hard nature, so that it may be easily imagined what injury must be produced by this first attack on the tender stomach of a new-born infant.

Another opinion is very prevalent, namely, that a child should not be put to the breast, before it is twelve, or even twenty-four hours old; but, in the mean time, it is crammed with other kinds of food, which at this period must be highly injurious. I therefore advise a mother, as soon as she has somewhat recovered her strength by a short and refreshing sleep, to give her child the breast without hesitation; because the first milk is in a manner intended by Nature, most effectually to carry off the impurities of the intestinal canal. Hence I am of opinion, that the practice above alluded to, is the pre-disposing cause of the thrush, which in many countries so generally prevails.

If a mother should not be able to perform the maternal duty, immediately on awaking from her first sleep after delivery, or if the infant should refuse to imbibe that balsamic liquor, it may be nourished by small quantities of a syrup made of sugar. There is no danger to be apprehended, if the babe were to receive no other nourishment for a whole day, till the mother is able to give it the breast.

With respect to suckling, and nurture in general, farther particulars will be stated in the course of this work. But I entreat my readers to pay attention to the following circumstance:

As soon as a woman is taken in labour, her female neighbours and acquaintances assemble around her; the apartment is crowded by a number of visitors; and the air becomes corrupted to a degree extremely detrimental to the woman as well as the infant. This assemblage of people must therefore be avoided: three persons, besides the midwife, can afford all the assistance required. Of these, one may be employed with the child, another should attend on the woman, and the third is only necessary to procure whatever may be wanted. The apartment, also, ought not to be immoderately heated.

After the delivery is accomplished, the child, as well as the mother, should be left to undisturbed repose. A bed without curtains is preferable on such an occasion; for bed-hangings tend to check perspiration, prevent the mother from surveying the motions of her infant, and injure her eyes; because the stronger light of the apartment sensibly affects the organs of sight, when it is received in a darkened place.

When the child is placed in bed, it ought to be laid alternately on its left and right side, so that, if it should vomit during sleep, the impure liquid may not return to the throat, but be discharged from the mouth.

It is improper to carry the infant or suffer it to lie exposed to a dazzling light, which hurts the eyes, by producing weakness and inflammation.

When

When the eye-lids adhere together, they should be carefully washed with cold water. The child's bed, or cradle, must not be placed near the fire, but the infant ought always to be kept moderately warm. All rapid changes of temperature, or a draught of cold air, as well as frequent exposure abroad, are equally injurious. Another detrimental practice, is that of carrying children from warm apartments immediately into a colder atmosphere: the more mild and uniform the temperature is, in which the child is kept, that is, the nearer it approaches to the natural degree of heat it has experienced in the womb of its mother, it will be the more conducive to the preservation of its tender life.

A new-born infant is not calculated to endure sudden alternations of air and weather. Hence we fail in so many attempts to render children hardy; because we expose them to changes of temperature insupportable by their tender organs; though it is proved by experience, that, once hardened, they will be able to encounter the vicissitudes of the weather which are felt even by an adult, without sustaining any injury. Our ancestors, and even the savages of modern times, certainly trained up their children more hardy than we do in general, and thus enabled them to defy the influence of the elements; but the *whole* treatment was conformable to that end. The parents also of such children, ought to be taken into

consideration, as we shall thence be enabled to account for many circumstances which are apparently inexplicable.

Christianity requires that the child should be baptized; but it does not demand any sacrifice at the expence of health, and even life; for its object is to promote the happiness of mankind. Hence, in the performance of this religious ceremony, it is a duty to avoid every thing which may prove dangerous to the existence of the new-made Christian.

The ceremony of baptism with cold water, may in winter become very injurious to the child, by occasioning convulsive fits, apoplexy, and sometimes sudden death. On the contrary, if the baptismal water should be used too hot (a custom that prevails in several parts of Germany), it may prove equally hurtful. An instance has occurred, where a young man became subject to incurable epilepsy, occasioned by the use of hot water at his christening.

When the child is suddenly sprinkled with water, particularly during sleep, a violent agitation is the necessary consequence. Such a stimulus is often successfully employed for resuscitating bodies apparently dead: hence, its violent effect on the tender frame of an infant, may be easily imagined.

I have frequently heard of very debilitated children, who have unexpectedly recovered from a state-

state apparently lifeless, by the affusion of cold water in private baptism. The impression of cold, however, on the susceptible organs of a living child, cannot fail to be attended with violent effects: and though many may be inclined to doubt this assertion, yet I am fully convinced of its truth; as people in general erroneously compare the feelings of new-born children with those of hardened adults *.

In order to avoid the effects of wet and cold, the child should be wiped dry immediately after the baptism. It must doubtless be injurious to the infant, when it is carried to the open air with the water imbibed by its swaddling clothes. The practice of tightly covering up children in feather-beds on this occasion, to defend them against the cold air, is likewise detrimental; because the body, after having been as it were confined in a vapour-bath, is suddenly uncovered, exposed to the cold air, and baptized with cold water: it is not very difficult to conceive, that such treatment may occasion the greatest injury. Those who are inclined to doubt this proposition, plainly evince that they are thoroughly unacquainted with the constitution of the human frame.

* The officiating clergyman ought to be cautioned against pouring the water used in baptism, upon the child from any distance; as it would be safer to allow this fluid to drop gently, and as closely as possible, on the tender face of the infant.

The christening of children in winter, within the church, has been frequently and justly censured. In some places, indeed, this religious ceremony is performed in the vestry; but however well intended this change of place may be, it does not prevent the injuries which too often arise, when infants are carried from the hot nursery into the cold air, and particularly if the church be situated at a distance. Permission ought certainly to be granted, for baptizing children in the winter season at the houses of their parents; and in this instance, all ranks ought to share the benefit alike; for it is in many places customary to confer this privilege of health, exclusively, on the children of the nobility and gentry. Thus, by keeping the tender body in an uniform temperature, all injuries will be avoided, and many a life preserved. Nothing, indeed, is more detrimental to a new born infant, than contracting a cold, which may be productive of a variety of incurable diseases. The minister who, with the most conscientious fidelity, pays the last visit to a sick person at a considerable distance from his church, would certainly not object to perform the first of sacred rites, without endangering the lives of his flock, to go with apostolic humility to the houses of his parishioners, and christen children, as the Apostles did in the primitive ages.

Before I conclude this section, I shall offer only another hint. Parents who feel a lively concern for

for the health of their progeny, should rather delay the ceremony of christening in summer, till the child is five days old; and in winter, till it has attained at least the eighth day, even though it be apparently vigorous and healthy: at that period of its life, the change of temperature will be less sensibly felt; and reflecting divines will have no reason to object to this delay.

ON THE

INJURIOUS AND SUPERSTITIOUS CUSTOMS OF MIDWIVES.

IT is a duty incumbent on authors, to point out a variety of mischievous practices prevalent among the common midwives; and it is no less the duty of parents, to prevent such persons from injuring their children, through ignorance and superstition. Beside the abuses before alluded to, there are numberless others; yet the following may be sufficient to excite the attention of the reader.

First, Illiterate midwives are accustomed to compress the head of the child, in order, as they suppose, to give it a better form: this is done particularly when the parietal bones are apparently displaced by pressure, in consequence of difficult parturition; but, by such attempts, the brain of the child is easily injured. I know a boy thirteen years of age, a perfect idiot, who is indebted for this misfortune to a similar treatment. Nature alone will gradually and spontaneously restore the head to its proper form: and after the first year, in most cases, no deformity remains, provided the child's head was originally oval.

Secondly,

Secondly, Some women are addicted to the abominable custom of forcibly drawing out the nipples of a new-born female infant, in order to express from their tender breasts the aqueous fluid with which they are filled. This practice is repeated for the first nine days of its life, every time the child is dressed or undressed; because it is absurdly imagined, that girls, thus managed, will abound in milk when they become mothers. But the consequences of such treatment are, callosities and indurations of the breasts, nay, even cancer.

Thirdly, Another excessively vulgar expedient is practised by these untutored women, who fancy that ruptures of the navel may thus be prevented: namely, when the umbilical chord has been discharged, they compress the navel with the broad part of the thumb, till it is buried in the body: from this custom alone arises the very evil which they wish to obviate.

Fourthly, After having separated the navel-string, the blood is pressed three times towards the remaining part of the chord, and some of this fluid superstitiously introduced into the mouth of the infant. The injurious tendency of this practice may easily be conceived, as the blood which issues from this vessel cannot fail to hurt the child, if not sufficiently expressed, though none of it should be swallowed.

Fifthly,

Fifthly, The midwives also, in some places, pour a little of the water in which the child has been bathed, three times into its mouth; an absurdity which is repeated after each successive bathing. This water is very impure, as it is generally heated in copper vessels; or, what is still worse, if they make use of a bathing-machine constructed of a similar metal. Hence originate gripes, colics, and convulsions; in short, the foundation is laid for a variety of infantile diseases.

Sixthly, The prevailing notion among midwives, that the tongue of every child should be loosened, is also productive of injurious consequences; for there is scarcely one case in an hundred, where this operation is necessary; the performance of which requires all the skill of an experienced surgeon: thus midwives, by simply separating the ligament of the tongue with their nails, frequently lacerate the sublingual artery; and thence are produced bad ulcers, and even mortal hemorrhages. It is better to delay this operation, where it cannot be altogether dispensed with; because the defect is often removed by the spontaneous motion of the tongue; or the operator may be more successful, after the child has advanced to a few years of age.

Seventhly, Midwives of the lower class harbour, in general, insuperable prejudices, which may prove extremely detrimental, both to the lying-in woman

woman and her child. For instance, when they observe a wrinkle upon the child's head, they immediately predict that it will be short-lived. This appearance on the skin is superstitiously called "the crown of death;" but in fact, it arises only from a long compressure of the head in its passage through the pelvis, and the consequent separation of the sutures of the brain: yet credulous females are weak enough to alarm the mother with such despicable predictions.

Eighthly, Never should the midwife be permitted to act the part of a physician or surgeon. Most persons of this description encourage the worst of abuses, to which the submission of mothers is eagerly enforced. If the child is debilitated, they administer their favourite remedy, brandy, which produces convulsions, suffocation, and apoplexy. On observing that an infant had turned blue in the face after such an experiment, one of these pretenders remarked, that it was of no consequence, as it could not be injurious. Others give coffee to new-born babes; again, others attempt to cure deformities, by lacing the body; and thus inevitably occasion ruptures and apoplexy; diseases which often follow a determination of blood towards the head.

From the preceding remarks it is obvious, that mothers cannot be too solicitous to acquire fixed and just principles, which may guide them in the management of their children.—Fathers, however,

ought

ought likewise to make themselves acquainted with such maxims; because women after delivery, are not in a state of health which will enable them to pay close attention to the practical, and most dignified, part of maternal duties.

CHAP-

CHAPTER I.

ON THE PROPER ESTABLISHMENT OF A NURSERY.

AS children, during the first years of their lives, spend the greatest part of their time in the nursery, their health and future welfare much depend on the manner in which that apartment is regulated. It is therefore to be regretted, that many useful suggestions relative to its arrangement, apply only to families whose situation in life permits them to pay that attention which the importance of the subject demands. Parental affection alone should induce them to spare neither trouble nor expence, in making such arrangements as may ensure the health of their progeny; for what are all the riches of the earth, when compared with sound and sprightly children? But persons in easy circumstances, as well as the poor in every station of life, have it in their power to attend in a great measure to the following particulars.

1. *On the requisites of a good Nursery.*—An apartment fit to be inhabited by children, ought to be spacious, high, perfectly dry, and, if possible, above the ground-floor.

It is a deplorable custom, to convert, in general, the most indifferent, the dampest and lowest rooms, into nurseries, where no pure air can circulate. Would it not be more advantageous, to appropriate the most spacious room to the use and benefit of the little ones, instead of devoting it to the reception of visitors? Such an apartment would be more superbly decorated by the residence of strong and healthy children, than by the most elegant busts, vases, or statues. But, in our principal mansions, children are commonly confined, during their infancy, among domestics; for whom, it is conceived, the meanest corner of the house is good enough. The nursery, however, ought to be capacious and airy, to afford children an opportunity of taking some exercise, by leaping and running about, when the weather will not permit them to enjoy the advantages of the open air. Nor should it be exposed to the influence of too strong a light; as the rays of the sun are injurious to the tender eyes of infants; and, for the same reason, red or crimson curtains ought never to be here employed.

Wealthy families should assign two chambers, opening into each other, for the purpose of a nursery: in one of these the children might sleep, and remain in the other while awake: thus they ought never to repose in the same room where they have passed the day; because breathing, perspiration,

spiration, and vapours arising from hot victuals, contaminate the atmosphere.

2. *On the best method of adapting Nurseries to the purposes of Health.*—Above all, we must endeavour to preserve a pure air in these apartments, by keeping them as clean as possible, and avoiding every employment which may tend to corrupt it. By an exact attention to cleanliness, children will be early accustomed to this cardinal, domestic virtue. Whatever is contrary to this advice, must be abandoned without delay. The nursery ought to be regularly swept once a day; and during this occupation, the children should be removed into another room, or, in warm weather, they may be taken abroad. But, if they cannot change the place of their usual residence, it may be sprinkled with water previous to sweeping, in order to lay the dust, which would otherwise settle on their tender lungs. No animal food should be dressed in nurseries, if it can possibly be avoided; nor should linen be washed, dried, or ironed there; as these processes render the atmosphere impure. Hanging up the linen of children, or drying their swaddling clothes, in the place where they respire, produces exhalations highly detrimental to their eyes, which, from such causes, are frequently subject to inflammations, especially in winter. At that season, therefore, many children are taken ill, and remain in a valetudinary state till the return of spring, when they are released from their prisons.

Dirty

Dirty and damp rooms also occasion cutaneous eruptions, tumours, as well as a pale and inflated countenance.

The vapours of charcoal; the exhalations from damp wood, with which the nursery is heated; as well as the strong effluvia of flowers, stupify children of a tender age, and occasion convulsions in irritable constitutions. For the same reasons, I cannot approve of the smoke produced by fumigating juniper-berries, frankincense, or other aromatic substances. It is erroneously supposed that this fumigation corrects the air: the disagreeable smell will indeed be removed, but a vapour more pernicious is introduced;—a stupifying remedy, which occasions head-ach and giddiness, even in adults, especially in weakly females, while it is productive of numerous disorders in delicate infants, who are unable to complain. Thus poor children generally undergo many hardships, before we are persuaded of their sufferings.

There is no method of purifying corrupted air, more effectually than that of admitting the pure air of the atmosphere: hence, the frequent opening of the window is the best means of procuring this fluid in a pure state. In all seasons, they ought to be daily opened; yet in the depth of winter it is preferable to open them only about mid-day; while very young children should be placed in bed, and protected by a screen against the sudden effects of cold.

This

This advice is indeed not economical, but it tends to preserve health; and consequently the practice of renewing the air should not be neglected, even in the coldest winter. It deserves, however, to be remarked, that the windows must not be opened too early, when children are in a state of perspiration; and the proper time would perhaps be about nine o'clock in the morning*; but every *draught* of air ought to be carefully avoided. If we wish to preserve the eyes of children, no sand† should be strewed in the nursery. All smoke proceeding from coals, is likewise hurtful to the breast; but if the room must be fumigated, in order to destroy the foul air, a window, or a small door, should, during that process, be kept open.

* This suggestion requires to be explained; as Dr. STRUVE, agreeably to the ideas of Prof. HUFELAND, supposes that children, in general, rise between six and seven o'clock in the morning. See the "Introductory Lectures," p. 104.

† WEIKARD observes, that in the great Foundling Hospital at Moscow, most of the young children were afflicted with inflamed eyes. Such infants, however, as require to be dressed in swaddling clothes, are reared in the country, whence they are afterwards removed to that institution. But, unfortunately, the floors there are covered with soft red flags, from which the long petticoats of the poor orphans probably raise the dust, so injurious to their tender organs of sight.—WEIKARD's *Vermischte Schriften*; or Miscellaneous Works, vol. ii. p. 21.

To correct the air of an apartment, it is only necessary to employ vinegar moderately warm, and to place it in a flat vessel, either at the side of a stove, or other warm place, or in summer, next a window, where it may receive the rays of the sun, and gradually evaporate, but not to dryness; a caution which ought not to be slighted. A sponge dipped in warm vinegar, and suspended in the room, will in some degree answer the same purpose; or a vessel filled with hot water may be used, an equal quantity of vinegar poured into it, and this mixture allowed gradually to evaporate. In order to destroy impurities, the least stupifying substances are perhaps what are called perfuming matches*; yet, to prevent dangerous accidents, they ought to be removed as far as possible from the beds of children. A few words more will suffice on this subject —Let us place no implicit reliance on those *artificial* means, which are generally recommended for purifying the air: they are neither so beneficial nor effectual as the admission of fresh air by the window, or the door. In summer, and particularly in dry weather, the window should be left open every day for several hours,

* These artificial fumigators represent small cones, and are made of odoriferous gums and different aromatic substances, which, when lighted, emit a fragrant vapour: they are much used throughout Germany.—*Transl.*

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though this time must be limited in cold or wet seasons.

Sprinkling of the floor with vinegar, is also an useful practice; but its evaporation on hot bricks is certainly detrimental, because a quantity of carbonic acid gas, or an impure air, is disengaged by this sudden process.

Ovens, or even stoves, constructed with a flue, so that they may be heated within the room, as well as chimneys, are the best contrivances for purifying the air of dwelling rooms. If the valve and door of the stove be left open over night, it will easily be perceived on the following morning, that all the pernicious vapours are dissipated. As long as the stove remains full of embers, the valve of the tube conducting the smoke should not be shut too close; as, in the contrary case, the suffocating vapour would be repelled into the room, and the air be vitiated, to the great detriment of health.

In large towns, though every attention be paid to the cleanliness of houses, it is nevertheless very difficult to introduce pure air into apartments; as narrow lanes and filthy courts cannot but contaminate the atmosphere in their vicinity: yet a draught of air is doubtless preferable to stagnating vapours, and therefore the airing of apartments should not be neglected. Stagnant air is, indeed, equally, if not more injurious than standing water.

Lastly, it ought to be our constant aim to procure a moderate temperature in the habitations of children; as the greatest heat should never exceed fifteen degrees of REAUMUR, or about 66° of FAHRENHEIT. Nothing is more injurious to health, than strong heat in the place where we constantly breathe. Hence, careful mothers should pay strict attention to nurses, and other domestics, who are generally apt to imagine that they cannot shew greater kindness to the young family, than by keeping them immoderately warm. —Excessive heat is more destructive to the human body than any other external agent; a proposition that is evidently confirmed in hot countries; the inhabitants of which never attain a long life. Similar effects follow the inhalation of the humid air, which is generated by drying swaddling clothes, washing, and cooking; than which, nothing has a stronger tendency to enervate the body, and vitiate the humours. Coughs, colds, rheumatisms, and eruptions, almost incessantly attack the children of poor people, at every season of the year; and nobody attends to the cause, which may be so easily discovered. In vain do we attempt to remove such complaints by means of medicines, while no efforts are made to obviate their pre-disposing causes. What contradictions daily present themselves to the observer! When epidemic diseases prevail, the injurious customs above related, promote the solution and corrup-

corruption of the fluids, so that the recovery of patients is consequently either retarded or altogether prevented. Children likewise are, as it were, kept in a constant vapour-bath. A moist and warm atmosphere, if continued for a considerable time, has an obvious tendency to relax and debilitate the human body, nay, even gradually to consume its vital powers: and those who are disposed to doubt these effects, need only reflect upon the chemical action of hot water, when it is confined in a close vessel, called a digester; by which even bones may be reduced to a gelatinous mass.

When children are removed from hot and damp places into a cold air, it is no matter of astonishment that, as perspiration is suddenly checked, their lungs should be attacked, and many bad consequences follow; which can be readily accounted for by those who are but superficially acquainted with the constitution of the human frame. These inevitable effects, in general, are, debility, and relaxation of the skin, excessive irritation and susceptibility of every stimulus.

It may, however, be easily explained, why a greater number of instances do not occur, in which infants suffer from convulsions and apoplexy, in consequence of the injudicious practice above alluded to; because, at this tender age, they are but seldom brought from the nursery into the open air. But it cannot be disputed, that, by such treatment, the foundation is laid for a de-

bilitated body, and the subsequent destruction of health.

Warm rooms, in my opinion, principally contribute to the extraordinary mortality of children, who are carried off by convulsions, in the first months of their lives. As they daily become weaker, from the constant action of heat, every draught of air, occasioned by opening the windows or doors, is dangerous to their vital organs. And it is an established fact, that in the proportion as we habituate ourselves to warm dresses and apartments, we render the body more liable to be injured, by exposing it to the influence of fresh or cold air.

To prevent such calamitous accidents, the cradles or beds of children ought not to be placed near the stove or chimney, nor close to a wall which is cold or damp. The contiguity of windows is likewise objectionable in this respect, unless the light be excluded by shutters: and the most proper situation for the couch of a child, is by the side of its mother or nurse. Although it is customary to place a screen before the stove, or around the child's bed, with a view to defend it against intense heat, as well as a current of air, especially in apartments which have been strongly heated by cooking provisions, yet, by this contrivance, the atmosphere of the room still remains in a contaminated state. In such instances, the door should be left open; but the couch must not be

be placed near it, lest a draught of air should hurt the child, while lying in a state of sensible perspiration.

For these reasons, the infant's bed should be placed exactly opposite to the window, yet with this precaution, that no strong light, or full sunshine, may injure its eyes. If the greatest light should issue from behind, over the child's head, it will naturally turn its eyes upwards; and if the light were admitted through a window, or from one side only, it will accustom itself constantly to direct its looks towards that side. In both cases, the muscles of the eyes habitually acquire an oblique direction, and children learn to squint. This unpleasant effect is likewise, though more gradually, produced, by frequently presenting dazzling objects to infants, either sideways, or almost perpendicularly above their heads.

Families who can afford to burn a night-lamp, ought to place it in the contiguous room, rather than in the bed-chamber; because the smoke emitted by the oil corrupts the air, and affects the respiration of children.

Infants should never be left alone, because they stand in need of constant care and assistance. Cats, dogs, and other domestic animals, ought by no means to be suffered to remain in the nursery amongst helpless children; for we are warned by a variety of melancholy instances, against this dan-

gerous custom. If parents in the lower walks of life are obliged occasionally to leave their children without protection, they should place them in a situation where they are not exposed to injury; and, in this respect, the floor of the room would be preferable to a chair or table.

CHAP. II.

ON THE NUTRIMENT OF CHILDREN.

General Principles.

1. PARENTS ought to pay personal attention to the nurture of their children. The carelessness and want of circumspection, evinced by the generality of nurses and domestics, with respect to the article of diet, will scarcely be credited. From an unpardonable inattention to every preparation of food, which requires a small degree of trouble, they neglect even the necessary precaution of cleaning the utensils of cookery. Mothers, therefore, who love their children, should imitate the lower animals, that feed their own young, and thus fulfil a duty imposed upon them by parental Nature.

2. The aliment of children should be appropriate to their age, and the strength of their digestive organs. Little attention, however, is paid to this important rule, which is so grossly transgressed, that nurses, in general, forget the necessary distinction between infants and adults; and though they might easily persuade themselves that the

the former possess neither a stomach nor teeth equal to those of the latter, yet, in spite of sense and reason, they frequently administer articles of food, which require for their digestion and assimilation, all the powers of a robust and full-grown person.

3. As children advance in years, they may be gradually accustomed to the food proper for adults. From the first to the third year of their existence, they should receive merely the aliment suitable to that tender age; but, after this period, they may be allowed to eat at the table of their parents: yet even then, many exceptions ought to be made respecting certain dishes of difficult digestion, which are at all times improper and hurtful. After their teeth have appeared, animal food may be given to them, though in very moderate quantities. Fat meat, or such as is roasted with butter, fried fish, sausages, &c. cannot be granted to children with safety: every species of heating beverage, for instance, wine, or ardent spirits, are, to them, liquid poison.

4. All excess in eating, is attended with the most injurious consequences. In this respect, the greatest errors are committed in the management of children; as most of them, according to a vernacular expression, are literally *over-fed*. However repugnant it may be to sound principles, dictated by reason and experience, it is nevertheless a notion almost generally conceived by common nurses,

nurses, that children will thrive and grow fat only in proportion as they are stuffed with strong and nourishing victuals. And though the child refuses to take more food, they continue to force down its throat one spoon-full of pap after another, at the same time repeating the vulgar adage, that "Eating and drinking keep life and soul together."—If Nature fortunately relieves the little sufferer by spontaneous vomiting, the over-wise nurse will immediately reply, that "Emetics promote the prosperity of children:" all persuasions and arguments are insufficient to convince her of the brutality of such conduct.

But there are likewise many mothers, who have learnt no better method of preventing the infant from crying, than that commonly practised: hence they place it at the breast, or administer the ever-ready pap, and by these means ignorantly contribute to its misery. Is it however probable, that hunger can always be the cause of infantine cries? As this cannot constantly be the reason, let parents previously examine the child, whether it is too tightly dressed, or perhaps hurt by a pin: or if it draws up its legs, a strong presumption arises that it is troubled with gripes: in short, we ought to extend our inquiries to every circumstance which may lead to a discovery of the causes, by which the speechless patient is afflicted. Should, therefore, an infant continue to cry, even though it had shortly before received food, or the breast,

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we may fairly conclude, that its complaint cannot arise from hunger.

At no period, however, is the danger of overfeeding children greater, than immediately after weaning them. It is then generally believed, that they may eat any kind of provisions fit for adults; and as the new diet usually tends to reduce, in a slight degree, their vigour and plumpness, it is erroneously imagined, that they should be strengthened with rich aliment, and particularly with animal food. A similar notion prevails after a child's recovery from any illness, when this absurd practice is the most certain means of completely spoiling the debilitated stomach, and laying the foundation of a new disorder.

It is an indisputable fact, that we are not nourished by the substances we consume, but by those only which are digested. The stomach must be allowed sufficient time to concoct the aliment received; for a premature repetition of food disturbs its operations, prevents the proper nutrition of the body, and pre-disposes the small intestines to obstinate costiveness, while the abdomen becomes inflated: thus are successively produced habitual eructations, the hiccough, frequent nausea, vomiting, diarrhœa, flatulence occasioned by the air disengaged from superabundant food, and, at length, violent and incurable colics. Is it then at all surprizing, that children with an excellent appetite become diseased, pale, and reduced in muscular

muscular energy, nay, that they are even ruined by satisfying their preternatural cravings?

In another class of children, however, the consequences of irregular and excessive feeding first become evident in an extraordinary degree of obesity: they are plump and stout; a circumstance from which injudicious nurses justify their conduct. But are such apparently robust children more healthy than others? No; their muscles are bloated and spongy; and though a bloomy colour in the face seems to bespeak their prosperity, yet this phenomenon is, by experienced observers, not easily mistaken for the ruddy hue of health; inasmuch as the former is a certain symptom, either of impurities, or worms in the alimentary canal; because a pale countenance is not the only indication of those troublesome complaints. Such children are subject to violent and sudden attacks of every species of disease, but particularly of those which affect the organs of respiration: they are generally troubled with shortness of breath, and frequently die while cutting their teeth, or of the small-pox. The irritability of their whole system is increased by the violent stimulus which food produces on the nerves of the stomach, as well as on the whole body; the circulation of the fluids is interrupted; a preternatural determination of them towards the head is encouraged; and, as the inflammatory disposition of the system in general is promoted, the influence

fluence of every disease is attended with additional danger.

Nor does it admit of doubt, that the appetite of a child will, after every repetition of unnecessary aliment, be preternaturally stimulated, so that at length it can scarcely be satisfied ; and in this manner are gradually reared the most extraordinary eaters. A child naturally requires less food than an adult : its own appetite, if not depraved by improper indulgence, would always inform us with respect to the proper quantity necessary to relieve its wants : this observation, however, is applicable only to healthy, and not voracious children.

Whoever does not eat with a true appetite, may be considered as unhealthy. Hence, parents should not compel a child whose stomach is disordered, to swallow food, but rather consult a professional man. There is indeed no particular reason to be dissatisfied, when, in such a state, the little patient refuses to take its usual allowance : this suspension of the digestive powers must be ascribed to the beneficent instinct of Nature, which, in children, is incomparably more genuine than in adults. It is therefore a groundless fear, that children will die from want of aliment ; for, while they drink milk, there is no danger, even though they should partake of little or no solid food. Milk is an excellent substitute for every other nourishment ; and a child may subsist on this

this food alone, for many weeks together. In ordinary cases, this nutritive fluid should be diluted with an equal quantity of water that has been previously boiled.

5. A certain regularity should be preserved in the nourishment of children; as this will be found the most effectual method of preventing excess, as well as of checking a voracious appetite; which, if the child should already be subject to it, may by such means be timely cured. It deserves however to be remarked, that these regulations should be introduced only when the child is six months old.

6. Children should not be nurtured promiscuously with all kinds of food. This observation particularly applies to the first year of their age: but if, in the succeeding years, their stomachs be sufficiently vigorous, they may be inured to digest various kinds of food, opposite in their nature. Nevertheless, it would be improper to administer to them sweet and sour food, milk and acids, &c. at the same time.

One of the most important circumstances is entitled to particular attention, namely, that of uniformly adhering to one species of nourishment, after its salubrious properties have been ascertained by experience. Infants at the breast, are frequently supplied with pap; a practice highly improper. Farther, parents should not try artificial methods of nourishing children; as, for example,

ample, to feed them one week on milk, and another on gruel. By such experiments, the stomach becomes vitiated, and the growth of the body is impeded: hence the necessity of maintaining a certain tone, or uniformity, in the whole treatment of infancy, and particularly in the article of diet. Sudden changes, in this respect, are very detrimental to the prosperity of infants; for, after another method of feeding them has been introduced, if not from necessity, but merely for a trial, they frequently become disordered, and perceptibly lose their muscular strength; so that this material error, when once committed, cannot be so easily repaired.

7. Solid nourishment should be given only to those children who are provided with teeth to masticate it; besides, the food proper for adults, ought but occasionally to be allowed to them; for instance, when they are employed in manual labour, and enjoy the benefit of the open air. For this reason, the physical education of a child bred in the country, should not be taken as a standard for managing another that is to be educated in a city; because rustic children, as soon as they are able to walk, not only take regular exercise almost the whole day in refreshing air, but they are also habituated to manual labour, at a much earlier period than those trained up in towns. Hence, meal-porridge and potatoes agree better with the former

former than with the effeminate constitutions of the latter.

8. No food, which has been prepared many hours, is proper for children. Victuals, after being warmed up, are certainly more difficult to be digested; and many alimentary substances easily ferment, and become sour by keeping, especially when they are dressed with fat, or butter: thus necessarily arises a rancid acrimony of the humours, which is accompanied with flatulence, heart-burn, costiveness, and other disorders. Lastly, it is proved by a variety of melancholy occurrences, that food, when long kept, becomes impregnated with the pernicious particles of pewter, or badly burnt earthen vessels; and there is no doubt, that in this manner children are frequently poisoned.

On the Nurture of a Child during the first year of its Life.

There are four different methods of nourishing infants, within the first twelve months of their existence.

1. By the milk of the mother:
2. By the milk of a wet-nurse:
3. By that of the lower animals; and
4. By means of bread and water, or pap.

Of each of these particular kinds of food, I propose to treat separately, and to point out their respective advantages and disadvantages.

From the result of this inquiry, I trust an unbiassed mother will be enabled to regulate her conduct, not only with respect to her own health, but also in what relates to her duty towards the pledge of her affection.

On the Suckling of Infants.

In the whole circle of Nature, there is no substance more proper for affording nutriment to a child, in the first period of its existence, than animal milk. All mamillary animals are instinctively directed to this vital source. But there is a remarkable difference between this salutary substance, when derived immediately from the maternal breast, and when it has stood for some time, and undergone spontaneous decomposition.

Milk which is imbibed from the breast of the mother, possesses, according to the excellent analysis of HUFELAND, the whole of its genuine strength, that animating and nourishing property which cannot be obtained from any other substitute, whether vegetable or animal. What, indeed, is more congenial to human nature? The thriving condition of those infants who are nourished by the breast of their parent, amply corroborates

borates this assertion. Hence we may fairly conclude, that it is most agreeable to the dictates of Nature and Reason, to support the child, throughout the first year of its life, either by the milk of its mother, or of a nurse.

No healthy woman, however, ought to intrust her child to a wet-nurse; as, by this criminal species of indulgence, she renders herself unworthy of the sacred name of mother, and endangers the health and life of her offspring. Ill health alone, or a total want of milk, should induce her to have recourse to that precarious expedient. But, even in this case, she ought to make herself familiarly acquainted with the character of the person in whom she reposes such confidence, both with respect to her moral conduct, and bodily constitution. The generality of nurses contribute to the ruin of children, by their prejudices, superstition, and immorality. They are also unacquainted with the necessary management during that important office: they eat and drink promiscuously whatever is presented to their palate; overload the child with nourishment at one time, and stint it at another; indulge in every species of debauchery; and sometimes infect the innocent babe with the most loathsome diseases. Nay, the individual character of a malicious, quarrelsome, or voluptuous nurse, has an indubitable influence on the future disposition of a child; an influence sufficiently corroborated by authentic facts. Far-

ther, many of these hirelings are habitually slothful: they neglect their charge, attend only to their own convenience, and frequently lead a most dissipated life.

There are so many circumstances to be considered in the choice of a nurse, that Nature in a manner compels a mother to perform the first duties towards her progeny; for, with these duties the most permanent blessings are intimately connected. Suckling is an excellent preservative against many disorders, while it obviously tends to remove the most urgent causes, which sometimes prove fatal in child-bed. Those mothers who conscientiously discharge this grateful office, easily overcome the attacks of the milk-fever, and are but seldom afflicted with sore breasts; as the superabundant milk is most safely drawn off by the mouth of the infant: at the same time, the management of a child is uncommonly facilitated, when it is suckled during the first year of its age; and if the mother adopts a regular plan of diet and regimen, there is no doubt that the babe will uniformly be more composed, or less subject to crying, and on all occasions be easily appeased: thus a mother is always provided by bountiful Nature with the best nourishment, as well as the most proper medicine, for her infant.

On the whole, it has been observed that children fed on the mother's milk, thrive much better than those who have been reared with spoon-

spoon-meat. By the former method, the lives of many have unquestionably been preserved. To ascertain the essential advantages derived from suckling, we need only compare a child that has been nurtured at the mother's breast, with another trained up in the opposite manner; no farther proof will be required. A parent acting with conscious rectitude, always experiences the first and most pleasing sensations, paramount to every reward, while she derives inexpressible pleasure by placing a lovely infant to her breast: she feels from sympathy, the chearful emotions expressed in the countenance of him who receives this nourishment, and who in a few weeks, as his sensibility increases, joyfully turns to her bosom.

Nor is it a trivial consideration, that children nurtured by the milk of their mother, imbibe with that congenial fluid, the most tender affection for their parent: they instinctively display a greater and more lasting attachment to her, than if she had but imperfectly, or by substitution, obeyed the voice of Nature. On the contrary, the love of a child is easily transferred to the nurse who has reared it with a fostering hand; and it has been frequently remarked, that such an adventitious regard has been equally strong and permanent. What an irreparable loss to the mother! But, when she personally fulfils that great duty, I venture to affirm, that even the bonds which

unite the whole family, will be more firmly cemented.

Happy, therefore, is the mother who suckles her own infant. But every child-bearing woman cannot participate in this happiness; because there are sometimes insuperable obstacles which demand the most serious consideration, in certain cases, where suckling may be attended with danger, both to the mother and her infant.

The first circumstance which ought to be attended to, is a bad state of the breast; when, for instance, the nipples lie too deep, or are so diminutive that the child cannot lay hold of them, or when they are chapped, and uncommonly sore. Should the nipples, however, be only tender, or in a slight degree inflamed, the attempt at giving the breast ought by no means to be relinquished, though it should, at first, be attended with considerable pain.

A diseased state of the nipples may be obviated, by preparing the breasts for suckling, in the period of pregnancy: for this purpose, an instrument, or apparatus, contrived by WENDELSTADT*, may be used with advantage; as it is

* As the author has not, in any part of his work, explained the instrument here alluded to, which he calls, in German, *Brustsauger*, or a Breast-drawer, it may be presumed, that it is constructed upon the principle of the breast-glasses, contrived for the purpose of promoting a free circulation of the milk, and frequently used in this country.—*Transl.*

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eminently calculated to attract and enlarge the nipples, be they ever so small, and deep within the breasts.

Suckling ought also to be desisted from, when the mother is afflicted with chronic and debilitating complaints; but acute diseases, such as fevers of short duration, do not injure the child in a degree similar to those which have taken deep root in the constitution of the mother, and contaminated the whole mass of her fluids. Epileptic, gouty, venereal, or phthisical women, as well as those subject to blood-spitting, and paralytic affections, should by no means venture to suckle their children, unless they are unconcerned whether or not they impart those dreadful diseases to their guiltless offspring. Farther, those mothers who are so unfortunately situated, that they cannot avoid provocation, grief, or sorrow, as well as others who possess an irascible and bilious temperament, or are subject to extreme nervous debility, accompanied with great susceptibility of every stimulus; all these persons will confer no benefits on their children, by presenting them with a corrupted milk, which cannot fail to injure their health, and lay the foundation for consumptive and fatal maladies. If the mother be only in a tolerable state of health, it would be proper to suckle the infant at least during the first two or three months: thus, it will enjoy better health, than if it were fed upon spoon-meat, with the

greatest trouble and attention, from the very day of its birth.

Before the babe has tasted the maternal milk, it should be stuffed with no other food; for it has already been observed, that such vulgar practices are not only injurious to the constitution of the infant, but they also vitiate its palate, so that it will not afterwards readily take the breast.

For these reasons, it is necessary that the mother place her child to the breast on awaking from her first sleep, or within twelve hours after delivery. Although the first milk should not be of a proper consistence and colour, it is nevertheless excellently calculated to cleanse the bowels, and remove the impurities of the new-born infant.

To prevent ulceration and pain of the nipples, the apparatus before mentioned is doubtless of advantage; but it ought to be applied on the very first attempt of placing the child at the breast, and even before it has endeavoured to draw the teat; as, in the contrary case, it will not readily accustom itself to this simple process.

During the first two months, the mother may present the breast to her babe as often as it demands a new supply of food: it will manifest the want of nourishment by searching and grasping after the nipples; yet it should not be forced to take that aliment without necessity; and, in this respect, its natural appetite is the safest guide. After that period, however, it would be more advisable

visable to adopt some regularity, and to accustom the child to drink only at certain intervals of the day, perhaps every three or four hours; for instance, to begin at seven or eight o'clock in the morning; next, between ten and eleven; then again, a full half hour after dinner, or about three o'clock; lastly, at seven in the evening, and, if necessary, once in the night. Suckling at night should, nevertheless, as soon as possible, yet gradually, be relinquished; because mothers frequently allow the child to sleep part of the night at their breast; so that the milk remains in its mouth, and becomes sour. Tender parents entertain unnecessary apprehensions, that an infant will be starved, if it is not regularly suckled every time it awakes, or cries; but, by an excess of nourishment, the delicate coats of the stomach are debilitated, and digestion is necessarily impaired. Hence, the more frequently a child is placed at the breast, without real necessity, it will become the more eager after nutriment; and the mother will, by such mismanagement, the sooner be exhausted.

As soon as the child discontinues to draw in the milk, and if, upon re-placing its mouth to the nipple, it suddenly turns away from the breast, it ought not upon any account to be enticed, by repeated trials, to imbibe a greater portion of that fluid at a time, than is consistent with its natural appetite.

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In order to prevent a stagnation of milk in either of the breasts, the infant should be suckled alternately on each side; for the contrary practice has been observed to produce bad effects, insomuch, that children readily acquire the disagreeable habit of squinting, or become side-bent and deformed, especially when their face and body are constantly turned in any particular direction.

If the mother happens to be provided with a superfluity of milk, this slight inconvenience may be remedied, by raising and pressing the nipples together with two of her fingers, lest the milk should issue with greater rapidity into the child's mouth than it is able to swallow; a circumstance which may be attended with dangerous effects. Many infants, indeed, by too hasty deglutition, become afflicted with a cough. When this happens, they should not be violently shaken, or clapped on the back with the open hand, with a view to prevent the cough; as such injudicious practice may occasion convulsions, or even instant suffocation. Hence it would be more prudent, to turn the head of the child gently towards one side, so that it may relieve itself without constraint: thus the temporary stricture of the pectoral vessels will soon and spontaneously cease; but if the irritation be too violent, a tea-spoon full of the oil of sweet almonds with syrup, or a small quantity of tea with sugar or honey, or even a little

a little luke-warm water given by the mouth, will generally remove the complaint.

Although I have already deprecated the custom of suckling infants at night, yet I must repeat this caution to those mothers who are subject to slumbering fits in the day time, while the child takes the breast: how easily may the little innocent drop from her lap, or be smothered by her incumbent weight, if placed in bed, during the shortest repose?

Another rule, which is not less important, though its transgression may not be suddenly fatal, cannot be too often inculcated. Mothers who suckle their children, ought, as much as possible, to avoid every thing which has a tendency to excite violent passions, especially those of terror, anger, or grief: but, if they have accidentally been terrified, or provoked to anger, the infant should not, upon any account, be presented with the breast for some hours after such an event; and indeed not till its mother has become perfectly calm and composed; for inattention to this indispensible rule, may be productive of serious consequences. It has been remarked, that infants receiving the mother's breast after a violent fit of anger, are so immediately affected, that the white of their eyes acquires a yellowish colour. And the celebrated HALLER relates a case of a child that was suckled during a paroxysm of great mental perturbation, and instantly after was seized with

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an hemorrhage from the nose and mouth ;—nay, convulsions, gripes, restlessness, &c. are the general effects which follow a conduct equally rash and imprudent. To obviate such imminent danger, the babe ought for several hours after the accident, to be nursed with a little weak tea, or biscuits boiled in water : meanwhile, the mother should carefully express her milk, in order to prevent obstructions and callosities of the breasts : besides, the maternal food, after these agitations of the mind, changes its benign nature, and acquires a deleterious quality.

Mothers ought farther to reflect, that suckling is designed for the primitive nutriment of children, and will only be comfortable and satisfactory to them, when it allays their hunger ; but it cannot possibly relieve *all* their pains and afflictions, or appease them so as to suppress their cries. Although it cannot be denied, that children become quiet as soon as they are placed at the breast, yet this composure is only of short duration, and terminates with the change of the object ; after which, they generally resume their lamentation with redoubled violence. Crying is not always an indication of hunger ; for, as by this effort alone, infants manifest all their sensations and wants, it may be considered as their peculiar language. Hence arises the necessity of distinguishing with accuracy between those cries which proceed from pain or other causes, and those

those produced by instinctive hunger. There is a remarkable difference, when a child incessantly cries in the same tone, and when it vociferates quickly and abruptly: the former generally points out the return of appetite; the latter denotes painful sensations: nay, even the natural temperament, as well as the particular treatment of children, obviously influence their sensible emotions; and in this respect, mothers cannot be too attentive. An exact distinction, or definition of the different sounds expressed by those cries, would, in a great measure, supply us with the prognostics of infantine diseases.

Nourishment given to them, when afflicted with pain, can be but of little service. If an infant be troubled with gripes, it cries with violence, and, at the same time, incessantly draws its legs towards the body: in such a case, to overload it with food, would only increase the complaint; an effect which no feeling mother would wish to produce.

After every time of giving the breast, the child's mouth should be cleansed with a soft linen rag, wrapped round the end of the finger; as the milk which adheres to the mouth and the tongue, readily turns acid, and is apt to occasion the thrush.

If it be asked, *whether an infant should receive any other nourishment, during the period it is nursed by the mother's milk?* my answer would be as follows;

lows: In the first three or four weeks, it ought to be fed on no other aliment, unless the maternal milk should not afford a sufficient supply. But, alas! many mothers, as well as nurses, in general, are not aware of the mischief thus induced: they imagine that a child cannot be supported by the breast alone, and ought therefore to be allowed a more substantial nutriment*. Impressed with this erroneous notion, they provide the usual pap, almost as soon as the child is born; a species of food directly opposite to that which is appointed by Nature, and derived from a healthy mother: hence it cannot fail to prove injurious; especially on account of the superfluous quantity introduced into a stomach, which requires a balsamic liquor of a very different quality: besides, the air and acid disengaged from the pap, tend to decompose and coagulate the milk. From this pernicious custom, arise inflations of the lower belly, gripes,

* There is a singular coincidence between the mischievous prejudices current in Germany, and those of this country. I remember an instance of a child, now eight years old, whose superstitious relations could not be dissuaded from giving him, soon after his birth, a thin slice of a dressed beef-steak, in order to teach him to suck, or rather to satisfy his *inherited appetite*; because they had understood that his mother once, during her pregnancy, ate a large portion of beef-steaks for breakfast, with an uncommon appetite. The consequence was, that the infant experienced, in a few days after this repast, a most violent attack of the thrush; from which he recovered only with the greatest difficulty.—*Transl.*

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and costiveness. Such children become afflicted with insupportable pains in the bowels, the iliac passion, and subsequently with the rickets: they obviously lose strength and muscular energy, notwithstanding all the care of feeding them plentifully; their skin loosely covers their bones, and, from the exposed situation of the blood-vessels of the head, the system of angiology may be distinctly elucidated.—I hear almost daily the complaints of country people, who apply to me for advice against that destructive disease, which is commonly termed the *iliac passion of infants* at the breast: those subject to this disorder, almost incessantly cry; so that the distressed mother enjoys no rest, either by day or night: the little patients turn themselves about in a pitiable manner; their bellies are hard and distended, while they are tormented with costiveness. But, in all the cases that have come under my inspection, I uniformly understood that the babe, besides the mother's milk, had been stuffed with pap, water-gruel, or thick porridge. What relief, therefore, can be expected from medicine? I have remarked in numberless instances, that children who immediately after their birth were nurtured with any other substances, independently of their mother's milk, were seized with the most violent thrush, on the third or fourth day of their life. Sucking children, on the contrary, remained free from that dangerous eruption, while the mother, exclusively,

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gave them the breast. By this simple method, the attack of that disorder may be prevented during the first fortnight; after which period it will assume a milder form, and seldom be dangerous.

The generality of nurses, however, pay no attention to the cries of suffering infants: they believe that such afflictions cannot be remedied, but that they will spontaneously cease, when, according to their absurd adage, "*children have made their share of noise.*" To corroborate this assertion, and perpetuate so vulgar a prejudice, they relate stories of children who were accustomed to cry for a length of time; to whom no physician could afford relief (certainly not, as the morbid cause of the complaint was continually renewed by improper treatment); and that, nevertheless, their lamentations in time abated. On such occasions, none of the spectators inquire into the cause, though every idiot comments on the effect.

But, if the mother should not possess an adequate quantity of milk to satisfy the cravings of a vigorous and lively infant, it may occasionally be supplied with a pap prepared of bread perfectly baked, or, which is still better, biscuits boiled in water or fresh milk, to the consistence of thin gruel. Another useful beverage is a herb-tea, made of star anise-seed, or cowslips, with the addition of a third part of milk *; yet, whatever

* Compare this passage with pp. 105 and 106 of the "Introductory Lectures."

kind

kind of aliment is thus substituted, it must be *newly prepared every time* it is used. From these simple means, the child, especially if it be fed by the breast of its mother, will derive sufficient nourishment for the first half year of its life: after that period, meat-broth may be given once a day, till the teeth have appeared, when suckling ought to be immediately discontinued.

There are certain means, by which the milk of a suckling woman may be increased or diluted. In the first place, I would advise her to drink a glass of cold water every morning; but to adopt no remedies, however speciously recommended by common midwives.

To debilitated women, who wish to continue the suckling of their children, without injury to their own health, I shall suggest the following beverage; the good effects of which are confirmed by long and uniform experience:—two parts of rich cow's milk are placed over a slow fire; when it begins to boil, one part of well-fermented mild ale may be added, and the whole gently boiled for another minute. This mixture should be drank, when cold. I have known instances where its use has been productive of the happiest effects, by women who were so much reduced, that, without this strengthening drink, they would have been obliged to discontinue the suckling of their children: their breasts were in a short time replenished, they daily gained strength, and their

milk was equally improved in quality, as it increased in quantity. A good beer-soup, with the addition of the yolk of eggs, is likewise, to most constitutions, an useful substitute for the ordinary impoverishing tea.

Far from wishing to inculcate a rigid system of diet to lying-in women, or to insist upon a strict observance of a particular regimen, I would, nevertheless, seriously advise them to avoid every species of aliment which is of an acid and flatulent nature, every excess of animal food, and particularly heating liquors; for, in this unguarded manner, their milk becomes corrupted, the child partakes of their acrimonious humours; and hence arise cutaneous eruptions, spasms, and obstructions of the glands.

The dress of wet-nurses ought to be light, without pressure or constraint. Tightly-laced stays are, for such persons, highly improper; as they compress the nipples, and occasion sore breasts; which should be kept warm, and every opportunity of taking cold carefully avoided.

Nothing is more injurious to the mother, as well as to the child, than a long-continued residence within the house, or a sedentary life in a moist, and over-heated atmosphere; as, on the contrary, there is no practice more beneficial to them, than the frequent enjoyment of a pure air, beyond the confines of a town. Hence the education of children in the country, possesses many

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and unquestionable advantages. Moderate exercise, either by riding in carriages, or, which is more preferable, by walking, and bustling about in domestic occupations, without fatiguing the body, is eminently conducive to health; but violent dancing, or laborious employments, are highly improper for suckling mothers; inasmuch as such pursuits over-heat and injure their constitution:—a German minuet, however, or a grave Polish dance, cannot be objected to; as they require only a moderate degree of exercise: yet I would rather see my friends in the temple of Nature, than in the most splendid ball-room. Nor is it consistent with the welfare of a suckling woman, to sit for half a day together at needle-work; because long-continued rest, or inactivity, has a very strong tendency to vitiate her milk. A mother will soon perceive the beneficial effects of giving her child the breast, after having remained some time in the pure and open air.

The period of suckling cannot be accurately determined for every individual; nor can I, on this occasion, refrain from repeating an observation already stated, that unless the impediments before mentioned render it altogether impracticable, every healthy mother ought to give her child the breast, at least for the first and second months of its life, and, at the same time, to pay close attention to her own progressive state of health. If she feels a diminution of her strength, or a weak-

ness in her limbs, then is the proper time of weaning her child; for, by continuing to suckle it, she might render herself subject to a consumptive disease: if, on the other hand, the child should begin to decline in bodily vigour, and the mother find, upon inquiry, that it does not proceed from improper management, but that this change must have originated from a bad quality of the milk, which could not be effectually remedied by the directions of a physician, she ought then entirely to desist from any farther attempts*. Diseases peculiar to the mother, under certain circumstances, likewise require the immediate weaning of the child: such cases, however, on account of the numerous exceptions to which they are liable, demand the advice of the profession.

When women employed in the office of wet-nurses become pregnant, and have advanced about the half of their time, it is indispensibly necessary to withdraw the infant from the breast, in order to prevent any injury to the growing fœtus.

If, therefore, none of the circumstances above alluded to should make an exception to the general rule, it would be most advisable to wean

* If the milk be of a watery consistence, it appears thin and blue, not unlike whey: a viscid milk may be drawn in threads; it adheres to a hair, and attaches itself to the ends of the nails, on immersing the fingers into it.

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the child in the sixth or eighth month of its life, or when it has cut four teeth. Too long suckling produces bloated, and over-fat children; a state of body which frequently subjects them to comatose and apoplectic complaints. Such infants always possess a precarious state of health; and, as the strength of the mother becomes exhausted, she will experience many irregularities in her own constitution, which can scarcely be repaired by her subsequent, though more prudent, conduct.

On the Weaning of Children.

Infants intrusted to the care of a wet-nurse, ought to be weaned when they are six months old, lest their future affection should be transferred from the parent to the nurse. Besides, the trouble attendant on weaning them is generally much greater after the first six months of their age, when the mental faculties begin to expand, and the power of recollection daily increases, so that they cannot, without great struggles, forget the foster-mother and her breast.

Weaning may be considerably facilitated by progressive steps, and especially by accustoming children to drink out of a tea-cup, or glass; these preparatory attempts should be made when they are three months old; because, at that period, they seize upon every moveable object, and carry it to the mouth, with an instinctive desire of relieving

lieving the uneasiness of the protruding teeth. The nurse, therefore, may frequently present to them a glass containing a few drops of fresh water, by which they will soon learn to drink; so that there will be no occasion to make use of sucking-bags, or other means. A few weeks ought to be employed in giving the child, together with the breast, the preparations before pointed out, as proper for infants; while the natural milk may be allowed at longer intervals, for a week or fortnight, yet always in proportion to the auxiliary food administered, till at length the former may be altogether abandoned. To accomplish this purpose, without too great a reluctance on the side of the infant, its mother or nurse should, during these progressive changes, not only eat and drink very moderately, in order to prevent an accumulation of milk, but also occasionally absent herself from the object of her solicitude.

If the teeth should appear, while these arrangements are taking place with respect to a new system of diet, the child must, without hesitation, be replaced to the breast, till the first cutting of the teeth is effected by Nature.

On the whole, it is highly improper to deprive an infant suddenly of the breast; for, by such hasty conduct, the mother will subject herself to be afflicted with sore breasts, and her milk to become obstructed in the organs of secretion; the necessary consequences of which are, indurations

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and callosities of those tender parts. Nor is this precipitate change favourable to the prosperity of the child, which seldom fails to participate of the maternal affections arising from morbid causes.

But, if a child has once been weaned, it would be a precarious experiment to recommence the former practice of rearing it, whether by a mother or nurse; and the degree of danger thence arising, will be commensurate to the length of time it has been deprived of the breast. It is an ill-founded notion, that children who are attacked with illness, in consequence of their new aliment, can be restored, by returning to their former mode of living: neither maternal nor mercenary human milk, though the former could be easily recovered from the disused breasts, are likely to produce that desirable effect; because they will yield a contaminated and unwholesome fluid. In such cases, the whole treatment of the child, since the period it has been weaned, ought to be investigated, and especially the nourishment it has received; an inquiry which opinionative persons generally consider as immaterial, but which those who are more prudent will chearfully resign to the province of professional men.

To indulge a child with all kinds of gross and hard aliment, immediately after it has been weaned, is a practice highly injurious: by this rashness, a variety of diseases are, sooner or later, inevitably produced. Although many infants continue in

an excellent state of health as long as they receive the breast, yet, after resorting to another, and less regular mode of living, they begin to decay, and are attacked with disease. With such children, the period we treat of, is also the commencement of scrophula, the rickets, and consumption. These are maladies, the rudiments of which are generally unfolded at this critical age, especially if there should exist the least pre-disposition for them in the infantine body. Hence, the particular diet adopted in the last weeks of suckling, must, for some time after, be strictly continued. A well-fermented beer, or good milk, will then be a very serviceable beverage: and, if the child has cut none of its teeth, solid nutriment should by no means be granted. Milk, however, does not always agree with children, after they have been weaned: in this case, I would recommend, according to the suggestion of HILDEBRANDT, a rich soup, prepared of a well-fermented and vinous beer, with the yolk of eggs; because table-beer, when boiled, acquires a disagreeable taste: lastly, the eggs must be well beat up, and gradually incorporated with the ale, in order to prevent them from curdling.

Of Wet-Nurses.

Should a child be not fortunate enough to be exclusively nurtured by the breast of its mother, none

none but a healthy and good-tempered person ought to be employed as its wet-nurse. But, in this appointment, parents cannot be too circumspect; and unless they be well assured that the woman to be engaged is of good morals, and in a perfectly sound state of health, it would be preferable to rear the child by spoon-meat.

Mothers will find it their interest to provide a nurse, even during their pregnancy; especially if they meet with a female to whose conduct they are no strangers. Neither the most promising external appearance, nor the most pressing recommendations, ought in such instances to determine their choice; for the strictest inquiries should be instituted respecting her moral and physical character, and particularly whether she be accustomed to indulge in spirituous liquors. I would suggest, to choose a girl of a mild disposition, who, in an unguarded hour, has been seduced by a perfidious lover, sincerely repents of her error, and discovers no inclination to relapse; for no meretricious women should ever be charged with so sacred a trust.

A wet-nurse should neither be too old nor too young, but between twenty and thirty years of age, and have borne only one, or two children. Her milk ought likewise to be new, and not have been drawn by her own child longer than three months: it should be of a fine white colour, without smell, and of a sweet taste. Her monthly discharges

discharges ought either to stop entirely, or to take place only in a moderate degree, lest the milk might soon disappear. She should also be free from eruptions, have no offensive breath, nor be subject to fits, cutaneous diseases, or small pustules on her breasts: these must be perfectly clean, moderately full, rising like a small hemisphere, and not flaccid.

> Chuse one of middle age, nor old nor young,
> Nor plump, nor slim her make, but firm and strong;
> Upon her cheek, let health refulgent glow
> In vivid colours, that good-humour shew:
> Long be her arms, and broad her ample chest;
> Her neck be finely turn'd, and full her breast:
> Let the twin hills be white as mountain snow,
> Their swelling veins with circling juices flow;
> Each in a well-projecting nipple end,
> And milk, in copious streams, from these descend:
> Remember too, the whitest milk you meet,
> Of grateful flavour, pleasing taste, and sweet,
> Is always best; and if it strongly scent
> The air, some latent ill the vessels vent.
>
> ST. MARTHE'S *Pædotrophia*: Transl. by Dr. TYTLER.

Notwithstanding all these precautions, a nurse should frequently be examined, and even watched, when she least suspects it, in order to discover how she treats her own child, and thus to ascertain the effects of such treatment.

In large corrupted towns, many families are very unfortunate in the choice of nurses, who will principally attend to their own child, deprive that intrusted to their care of its due portion of nourishment,

rishment, and consequently overload it with pap. Many of these hirelings conceal the real age of their own child, while they pretend that it is younger than the truth implies, because they falsely attribute its size and thriving state to the salubrity of their milk: nay, the system of imposture is sometimes carried to such an extent, that unprincipled persons, from the most sordid motives, do not hesitate to exchange the children of respectable parents.—An anonymous German, author of a work, entitled "On Matrimony,"* relates a curious anecdote of a young Count, whose features bear so exact a resemblance to those of his foster-mother, that a strong presumption arises against the justice of his claims to the paternal title and estate. Deceitful nurses display their despicable cunning towards parents, sometimes, by wetting the swaddling clothes at night, as if it had proceeded from the child, and urge this as a proof of plentiful nutriment: they will then, in the presence of the

* I have the pleasure of being personally acquainted with the ingenious author of this interesting treatise, which excited great attention in Germany, soon after its publication in the year 1792. We are indebted for the valuable remarks on practical life in which it abounds, to Mr. HIPPEL, of Königsberg, one of the Counsellors of the War Department to the KING of PRUSSIA. The reader will find some account of this work in a pamphlet, entitled "*A Concise Review of Original German Books*;" published in 1795, by ROBINSONS, Paternoster-row.—*Transl.*

mother,

mother, place the infant at their breast, which it seizes with avidity, because it is really in want of food. Yet this favourable appearance of its prosperity is only of short duration; for in vain do the parents attempt to relieve its misery by medicines, which cannot cure the mischievous consequences of improper treatment. The child at length becomes restless; the nurse is determined not to be disturbed in her sleep, drinks gin or brandy, then places the infant to her breast, or she gives it various anodynes, such as laudanum, a decoction of poppy-heads, or some other deleterious draught, by which it is stupified, and, perhaps, carried off in a fit of apoplexy.

Unclean and lascivious nurses may spread the greatest misery through whole families; they may communicate the venereal and other contagious diseases to the most healthy children. ROSENSTEIN, a creditable German writer, informs us in his Treatise on the Diseases of Children, that in a respectable family at Stockholm, the father, mother, three children, the maid-servant, and two clerks, were infected with the venereal disease, by a nurse who was admitted into the family, without a previous inquiry into her character. But it is a melancholy circumstance, that disorders thus imparted, often break out at a distant period, when the body begins to expand its powers, for instance, at the time of teething, or still later, when the whole frame has already been so completely

pletely envenomed, that it is beyond the power of art to eradicate the poison.—Even the vicious propensities of these persons may be transmitted to infants, by means of the milk. BALDINI* speaks of a little girl, only seven years old, who had an irresistible desire of drinking brandy, which she had contracted by drawing the breasts of a nurse who was an habitual tippler.

Mothers cannot be sufficiently cautious in the choice of a nurse, especially as the venereal disease continues to extend its baneful influence even to our villages†, so that in process of time it will be very difficult to procure uncontaminated women to perform this office. Hence a medical man should on every occasion be requested to examine such persons, before they enter on their dignified employment.

But, after having met with a proper nurse, it

* *Metodo di Allattare a mano i bambini del Dr.* FIL. BALDINI, *Napoli*, 1784.

† It is devoutly to be hoped, this gloomy picture of modern manners does not apply to the country people of Britain, with the same justice as to those on the Continent: nay, the case, with us, appears to be reversed; for though our damsels and matrons are more immaculate, and scarcely by name acquainted with that loathsome affliction, except in the vicinity of large towns, yet the greatest danger still prevails in the metropolis, and other great cities, where similar precautions are necessary in the choice of nurses.—On the whole, however, it is affirmed by the most intelligent of the Faculty, that this evil has considerably abated during the last twenty years.—*Transl.*

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is necessary to attend to her behaviour. In the houses of the wealthy, wet-nurses are anxiously provided with a superfluity of food, and often with pastry or high-seasoned dishes, by which their stomach is impaired; nay, they accustom themselves to the habitual use of fat animal food, strong beer, as well as wine, and other heating liquors. As their former mode of life was materially different from the present, their whole nature now changes in consequence of a luxurious diet, which gradually generates voluptuous and gluttonous habits: thus, they become afflicted with eruptions of the skin, diarrhœas, and other complaints. Farther, the sudden transition from continual employment, perhaps of a laborious kind, to a tranquil and idle life, especially if they are much confined within the house, is very injurious to their health. By such a change their milk is vitiated, the child becomes afflicted with violent gripes, or cramps, and daily grows leaner and more debilitated.

From these considerations it follows, that wet-nurses ought to continue the use of their customary food, and not to partake regularly of the dainties of the family, till they have been gradually habituated to them. Nor should they remain constantly idle; but occasionally employ themselves in household affairs which require no laborious exertions. It is farther necessary, that they frequently resort to the fresh air, and remain in it for

for a considerable time, daily, and in every season. On those days when the child has enjoyed the benefit of pure air, it will rest much better at night; though either extreme of heat or cold must be cautiously avoided. Every species of excess in drinking, and particularly the use of brandy, ought to be strictly guarded against. If the nurse be a married woman, she must not be prevented from cohabiting with her husband, as her ungratified desire* may prove injurious to the infant.

"For, from the wish obtain'd, the body feels
A new complacence, that each illness heals."

Whatever has been stated in the preceding part of this work, relative to the conduct of

* Although I cannot agree in opinion with Dr. MOTHERBY, who maintains, in his Medical Dictionary, that "the custom of abstaining from venery, while women continue to suckle a child, is so far without reason to support it, that in truth a *rigorous* chastity is as hurtful, and often more pernicious, than an *immoderate* venery;" yet I am inclined to think, that *such* habits, in general, require no public advocates, either to defend or suppress them; because every thing here depends upon the peculiar nature and situation of the individual. On the whole, I believe that a moderate gratification of connubial rites, during the periods of gestation and suckling, is even less hurtful to the infant, than violent fits of anger, and other depressing passions; provided that the mother is of a constitution sufficiently vigorous and healthy; that she is not stimulated by heating liquors, and commits no other excess in her diet and regimen.—*Transl.*

suckling

suckling mothers, is also strictly applicable to wet-nurses. One precautionary measure, however, deserves particular attention, namely, that the child be nourished by the breast alone, till it is two months old; and that it be very gradually habituated to the articles of infantine food before specified: in short, its management ought by no means to be exclusively devolved upon a foster-mother; as the natural parent will find daily opportunities of exercising her maternal duties, from which no consideration of rank or wealth should ever exempt her.

It may reasonably be expected, that mothers in the middle and higher ranks of society, have read and reflected on the rearing of children, so that they may be enabled judiciously to apply their superior information, by instructing the nurse in her duties, and removing her prejudices or superstitious notions. There is, however, considerable danger in parting with a child, and suffering it to be nursed in the houses of strangers: to prevent the anxiety so congenial to parents, whose circumstances in life are easy, it would be more proper to take the wet-nurse into the house, that she may be under their constant superintendance.

Before, however, the child is for the first time placed to the breast of a hired woman, a gentle laxative ought to be administered to the latter. All other rules and directions relating to this subject have already been stated under the head of weaning;

weaning; and, upon the whole, I presume that the fair reader has made herself familiarly acquainted with the preceding observations.

On the Nourishment of Children, by the Milk of Animals.

The milk commonly used for this purpose is that of the cow, because it is more readily procured; though that of goats may also be substituted. Either ought to be taken from a healthy animal, not in a state of gestation, nor fed upon grains from which spirituous liquors have been distilled; as such milk is of a bad quality, and may be productive of many infantine complaints.

Another circumstance, though apparently insignificant, claims our attention:—the milk used for children must, if possible, be uniformly taken from *the same animal*, because each individual generates a peculiar kind of this fluid; and thus also the milk of every cow is a different composition.

Indeed, it would be more useful, if the child could be applied to draw the milk immediately from the teat of the animal; for, after this valuable liquor is obtained and allowed to stand for some time, it loses part of its salubrious qualities; besides which, the act of sucking considerably promotes its digestion in the stomach.

As this method, however, might be attended with difficulties, the milk should be used either immediately after milking, while still warm; or if in summer, it may be previously boiled, to prevent its coagulation. After it has become cold, it ought to be diluted with one-third of warm water, and the vessel placed either at some distance from a fire, or over a faint lamp, sufficient to make it luke-warm. The former expedient is certainly preferable, though it cannot always be resorted to; and if the latter be adopted, the burning lamp must not be suffered to contaminate the air of the room in which children sleep, or breathe during the day, as has before been remarked in the first chapter. Constant attention will farther be required to this circumstance, that the *whole* of the milk may not be kept in too warm a place, nor repeatedly warmed up by the fire, but rather that the proportion of tepid water be added every time the child is nursed; for the contrary practice will soon decompose the milk, and turn it into acid.

To induce children to drink, a vessel in the form of a bottle is frequently used; but it ought not to be made of pewter, nor even have a pewter or leaden top, which infants put into their mouths: such utensils ought always to be constructed of glass, with a short neck, in order to preserve an uniform temperature of the milk; for, in a contrary shape, it will remain only at the bottom, and

and get cold while the child is imbibing it. This vessel must be frequently rinsed, lest the milk become sour; and it would be proper to keep two of these short-necked bottles, that, while one is in use, the other may be cleaned. To ascertain with exactness the regular proportion of milk and water to be given to a child, it would be necessary to mark the measure on the outside, in a manner similar to those employed by chemists. On the orifice of this inhaler may be fixed a piece of sponge, cut in the form of a nipple, and covered with fine linen, but in such a manner, that the child may not draw out and swallow the sponge itself.

If a vessel proper for this purpose cannot be readily procured, a strong phial may be substituted, the mouth of which should be stopped with a cork, previously perforated with a red-hot wire: next, a piece of sponge may be fastened to the top of the vessel, in the manner before described; and, with respect to the cleaning of such utensils, the most scrupulous attention is indispensibly requisite, to prevent the milk from turning acid, and injuring the digestive organs.

By this regulation, every pretext for employing those disgusting little sucking bags, the favourite remedy of nurses, for exercising the mouths of children in suction, will be effectually obviated.

The method of feeding children with animal milk is, however, attended with considerable

trouble, because it ought to be practised with minute attention to particular circumstances, so that the whole services of one person should be exclusively devoted to that end. I am of opinion, that it is almost as difficult to find a proper person for performing that duty with conscientious precision, as it is to find a good wet-nurse; it would therefore be more advisable for mothers to take the charge of nourishing their children upon themselves.

As the human milk is the produce of both vegetable and animal food, it is unquestionably superior to that obtained from animals alone, because these generally subsist on vegetables only; nay, it is certain, that the act of sucking it, by which the saliva of the child is mixed with the milk, beneficially promotes digestion. Hence Professor HUFELAND judiciously asks, "Why has asses' milk not been tried as a nutriment for infants, since it has been proved by chymical analysis, that it possesses properties nearly similar to that secreted by women, and is digestible even by the debilitated stomach of a phthisical patient?"

Animal milk, however, is insufficient for the only food of an infant, after the first fortnight of its age: it may then occasionally be fed with pap made of grated biscuits, well-baked bread, or granulated flour, and boiled in a solution, consisting of the yolk of an egg beat up in half a pint of water, and a little sugar. But attention should be

be paid, that one of these preparations only be used, and not changed, without absolute necessity. After the second month, small portions of meat-broth may be given with advantage.

Porridge made of oatmeal, or other flour, is an improper aliment, as it tends to produce acidity in the stomach, which tendency is besides peculiar to animal milk, and may be effectually corrected by the articles of nutriment before specified.

It is also worthy of remark, that *one* kind of food only should be given at *each* time; not a variety of articles in immediate succession, such as meat-broth after milk. The use of that simple nourishment I have proposed, together with animal milk, may be cautiously continued, without administering any solid food, till the first teeth make their appearance.

On the proper Nutriment of Children, during the period of Dentition.

At the commencement of this stage of infantine life, or during the first months, while they are cutting teeth, the change of diet ought to be so imperceptible, that scarcely any other but the nourishment pointed out as proper for infants at the breast, or those who are reared by spoon-meat, may be allowed, in addition to animal milk. Yet a more regular division of meals

should now be adopted; for instance, a new supply of food every three, or at the farthest, four hours, and once only, if required, at night. It would be superfluous to repeat all the particulars already suggested with respect to food in general; a few hints therefore will suffice to instruct the intelligent reader.

When the first teeth have appeared, a little beef-tea with toasted bread may be given to the child every other day, and in the intermediate day an infusion of aniseed, in which the yolk of an egg and a little sugar have been properly dissolved; or alternately a good beer-soup, made as directed under the head of weaning: this is a beneficial diet for infants at an early age, and even at a later period, when they cannot digest the milk of animals.

The most wholesome beverage for children, during the stage we treat of, consists of equal parts of milk and water: when this mixture is first adopted, it may be made of two-thirds of water and one of milk; which last should not be boiled, but heated to the boiling point, as by such a process its volatile and most nutritious particles may be preserved. To accustom infants to the use of animal milk, is a very beneficial practice, as this fluid affords the greatest proportion of liquid nutriment: and in diseases, when the little patients cannot take any other food, they may be supported for many weeks on milk alone.

Sweet

Sweet whey deserves to be strongly recommended, especially when it is prepared according to the directions given by HUFELAND*. It is to be regretted that this preparation, which requires a considerable quantity of milk, is attended with so great an expence in towns, where this necessary article of diet is generally monopolized. Those, however, who can afford to give their children whey for their daily drink, will confer upon them benefits greater than they imagine. In the first months they may be brought up by such beverage alone, as a better nourishment will not easily be discovered: it is possessed of all the volatile parts of the milk, on account of which it is

* Take a calf's stomach, steep it in vinegar for two hours, then inflate and dry it; by which means it may be long preserved. Cut a thin slice, about the length of two or three inches, which will be sufficient to coagulate a whole quart of milk, in the manner as follows: the slice must be soaked two hours in a cup of water, and then poured, together with the impregnated water, into a pot of unboiled milk, from which the cream has been carefully separated. This preparation is now suffered to stand in a warm place, that it may be gradually heated, though not boiled. When it has stood a quarter or half an hour, the cheesy part is thrown to the top of the vessel, and may be cut through, when the clearest whey will appear. This valuable liquor should be gradually separated, and may be easily poured away from the curds; for the quantity of the latter will be in proportion to the length of time it has been allowed to remain in a warm temperature; but care should be taken, that the whey be not turned to an acid, by too long an exposure to heat.

readily digested, and does not contain the least particle of acid. It is far preferable to the common whey obtained by boiling the milk. I am acquainted with no better, or more proper drink in diseases, such as the small-pox, catarrhal and scarlet fevers, teething, &c.; nay, I believe the lives of infants have by this simple preparation been frequently saved.

Another excellent beverage for children, may be composed by infusing one-third of liquorice-root and two-thirds of the couch-grass root. These vegetables are useful for such infants as are afflicted with bad humours, eruptions and biles, as likewise for those who are very fat, in consequence of their being over-fed; as their obesity is necessarily increased by the use of milk alone; whence arise shortness of breath, suffocation, or a viscid state of the stomach. From such effects it is concluded, that milk occasions viscidity, and many are afraid of allowing it to children; but the fact is, that they do not distinguish when it ought to be given or withheld.—Tea, when drank habitually, and in large quantities, weakens the powers of digestion, especially when taken warm; it causes flatulence, a copious discharge of urine, leanness, and a pale countenance. Hence the most injurious practice is that of accustoming children to the use of tea, without milk; which is the most certain way of making them weakly and miserable; thus they become troubled with incessant

cessant thirst, so that many will drink several quarts in a day; in consequence of which, their stomach is distended, digestion is impaired, and they at length acquire bellies unnaturally big, and are troubled with glandular obstructions. But if about the third part of unboiled milk be added, tea is less injurious as a daily drink for children. I have hitherto spoken only against the abuse of tea in general.

The compositions of herb-tea, as they are sold by quacks and travelling mountebanks, though speciously entitled sanative, pectoral, or nursery-tea, require the greatest precaution. In many places they are exposed to sale by those impostors, and sometimes by old women, who are ignorant of botany, and collect improper and stimulating plants, as well as others of a poisonous quality, which they mistake for those of salubrious properties. No parents who regard the welfare of their offspring, will purchase such dangerous compounds from any person but a skilful apothecary; and magistrates apprised of such mischievous practices, are in duty bound to suppress them, and punish the daring offender who thus sports with the lives of his fellow-citizens.

Beer is likewise improper in the first year of infancy, unless it be made into soup, as directed in a preceding part of this work. A clear and well-brewed beer, mixed with water, and then suffered to undergo a new fermentation, would not

not be injurious to children upwards of six months old, if given occasionally; but beer alone must not be allowed at that age, because it is in most places of an indifferent quality, sour, and even adulterated. This liquor, as it is sold in public-houses, is too intoxicating for infants, and increases their disposition to inflammatory diseases: in short, it is unfit to be made their daily drink. Of spirituous liquors, as wine and brandy, I shall treat more particularly in the sequel, whence every reflecting mother will doubtless perceive, that it would be criminal to offer them to children. Although the former would be detrimental to their health, if used for daily drink, yet as a medicine it will sometimes be useful.

Convinced from experience, I shall venture to pronounce, that the articles of food before mentioned, are the best and most nutritive during the first period of infancy. Attempts have, indeed, been made to nourish children by means of mucilaginous substances, such as gruel made of barley, oats, &c.; but these articles, prepared in the usual manner, though productive of much aliment, should not constitute the only support of children. It is an established fact, that an exclusively vegetable diet tends to promote the generation of an acid; children thus nurtured will undoubtedly become leaner, and subject to bilious and flatulent complaints. If the plan before suggested be adopted, in such case, granulated wheaten flour,

flour, oatmeal, pearl barley, &c. may be altogether dispensed with during infancy. The improper mode of preparing these dishes, is the principal reason why they do not agree with children; because people in general conceive, that all their victuals should be boiled to the consistence of a thick mucilage. In my own neighbourhood, where children are stuffed with a pap made of the granulated wheat of Cracow, I have observed the most injurious consequences; and am therefore persuaded, that this kind of nutriment is a principal cause of consumption, scrophula, the rickets, and especially of habitual flatulency, gripes, and the iliac passion, a malady very common in Germany. But should parents prefer bringing up their children on wheat, barley, or oatmeal, the following circumstances ought at least to be attended to. In order to render these substances more easily digestible, they may first be stirred in boiling water, by which the mealy surface will be separated; next, fresh water must be poured upon them, in which they should be well boiled; so that a semi-transparent jelly will be obtained: this, when properly diluted, will not oppress or disorder the most tender stomach.

I should farther observe, that it will be proper to give children occasionally, besides this jelly, a little of the bread-pap prepared with the yolk of an egg, as before described; or some meat-soup, every other day, with a view to correct the disposition

sition to acidity, or rather to strengthen the organs of digestion.

Dishes dressed for the palate of adults, such as flesh meat, potatoes, cabbage, dumplings, &c. are not calculated for children in the first year of their lives, during which they ought to have *their own peculiar nourishment*, if we earnestly wish to preserve their health. In the progress of my Treatise, I shall say more upon this subject, as I propose to point out some particular kinds of aliment, which are unfit for infants of this description.

Animal food is very frequently, though injudiciously, given for children; for it is erroneously imagined that it will render them vigorous: and, with this intention, wine and beer are also frequently administered. I have formerly suggested the propriety of allowing them sometimes a thin, and not too fat meat-broth; but this ought by no means to form the only, or the principal article of their diet, as it is too stimulating for infants, who naturally possess a high degree of irritability: hence the circulation of their fluids is accelerated; an extraordinary degree of heat is thus generated; the blood is propelled towards the head, and a tendency to inflammatory affections is the necessary consequence. We should be on our guard, lest we might be deceived by the blooming external appearance of such children, as their health certainly is ambiguous. If this artificial

tificial susceptibility of every stimulus be accidentally increased by any morbid irritability, it will be found, that such individuals with difficulty overcome the attacks of disease. As their febrile paroxysms are thus rendered more violent, the little patients become subject to convulsions: they often suffer during the period of dentition; or are suddenly carried off by an apoplectic fit; and, if they survive that period, the small-pox is extremely malignant.

There are other kinds of irritating food which produce similar bad effects, particularly when eaten in abundance, and for daily fare; such are wine, beer, chocolate, spices, and coffee. Mothers should not suffer the nurse to give young children those pernicious articles of luxury, by stealth. It is a frequent remark, even in common life, that the practices here alluded to are reprehensible; and parents often forbid the use of wine, and coffee, before their little-ones have overcome the small-pox; but this standard is very uncertain, because they may be attacked with the small-pox in the first weeks of their lives. Hence arises the necessity of adopting a safer regulation, that is, not to allow children any of those exceptionable things till they are two years old, and even after that time the quantity should be moderate.

It is a prejudice fraught with mischief, to place children at table, and permit them to partake of every

every thing, after they have had the small-pox; for the sudden transition from their simple and natural food, to the incongruous preparations of the kitchen, must be attended with injurious consequences, which persons of ordinary capacities may easily conceive.

On the Nutriment of Children, from the first year of their age to the complete period of Dentition.

Whether the child has hitherto been reared by, or without, the breast, the transition from liquid to solid or gross food, even after it is twelve months old, must not be sudden. Immediately after weaning infants, the nutriment before specified, as proper to be given during the period of suckling, may be still continued; though they may now receive an additional allowance, in proportion to the loss of the maternal milk; and their meals ought also to be regulated according to the times of the day when they were formerly suckled.

Jellies made either of oatmeal, rice, barley, bread, or biscuits, and occasionally small quantities of meat-broth, may now be used with advantage. During the whole of this period, the progress of dentition affects the child, so that every species of stimulating aliment should be prudently avoided, for instance, animal food, wine, and spices, which increase the febrile disposition already

ready existing, and lay the foundation for convulsions and apoplexies. Bread, milk, and water, are the most simple means of subsistence allotted to the human race; hence we ought, at least for our children, not to substitute others of a less beneficial tendency: their drink should be pure spring water and milk, either alone or diluted. A cup of new milk, every morning, excellently well agreed with my own children; a practice which was regularly continued. By this nourishing breakfast, without any other means, a very reduced infant was restored from a consumptive to a valetudinary state. At other times of the day, it would be more advisable to let them drink exclusively water, which excites only the degree of thirst consistent with health. Those whose stomachs are too weak to digest pure milk, may take, in the morning, a soup made of beer and milk, which I have already described*: for common drink, I allow home-brewed beer, fermented with the addition of water, though the latter fluid, in its pure state, appears to me preferable to any mixture.

When children frequently enjoy the benefit of fresh air, and take a good deal of spontaneous exercise, the nature and proportion of their aliment cannot be precisely determined; for too light a nutriment would certainly produce debilitating effects. Hence, children of this age readily digest

* See page 225.

beer-

beer-soup, broth, and pap, which latter is very detrimental in the first year; but in order to render it less difficult of digestion, it ought to be thin and sufficiently boiled, by which means its bad consequences may be obviated, though it should be their only support. I shall, however, treat more particularly on this point, in the sequel.

On the Nutriment of Children, after the acquisition of the Teeth.

Those useful instruments of mastication having now appeared, it is necessary they should be employed. Nature has in the earliest period of life taught us, that all kinds of food which require to be chewed, as meat and bread in large pieces, or even in smaller particles, unless when reduced to a pulp, are very unfit for the tender mouths of children, previous to the formation of their teeth. This parental hint may be still farther applied; because such food as requires to be masticated by the teeth, cannot be rendered perfectly digestible for infants during the first period of their existence, though it be prepared by the cook; and because by the aid of chewing, the saliva is more immediately mixed with the food, the digestion of which is thus promoted, better than by all the efforts of art. The richest pap is inferior to animal milk, which ought to be used in its

its pure state, or drawn from its original source, if its nutritive and vital properties are to be preserved. Nor is there an article in the united animal and vegetable kingdoms, which affords a more salutary nourishment to children, during the whole period of dentition, than the milk of animals.

When the teeth have made their appearance, children naturally learn to chew; a process which tends to consolidate these useful bones, to increase the secretion of saliva, to prepare the food for a more easy digestion, and thus to prevent too great an exertion of the stomach, which the reduction of crude aliment would require. At this period, children may eat bread sparingly buttered: they may also sit at the table of their parents, and partake of such victuals as are usually dressed, yet excepting all improper dishes which are prejudicial even to adults.

As the body gains strength and solidity, the countenance becomes more lively, the eyes acquire additional lustre, the digestive powers of the stomach also increase, and children are then able to bear a more substantial diet. Exercise and fresh air uncommonly conduce to the health and vigour of the body, while they strengthen digestion: with respect to the former, however, running or walking is far preferable to riding in a carriage.

Of those Substances which are absolutely hurtful to Children, before they are two years old, and which, even after that period, require to be given with great precaution.

It would be no difficult task to point out a great number of substances which, according to strict rules of diet, ought to be banished from the nursery. But dietetic observers have often, with the best intentions, carried their severity to excess, and exposed themselves to the ridicule of sceptical epicures: one of these exultingly told his physician, that he had eaten sausages and pork, drunk brandy and other liquors, without experiencing the least inconvenience from his irregular conduct. Indeed, the principles of dietetics will ever remain unsettled, if we do not adopt certain rules agreeable to the age and constitution of the body, the peculiar circumstances in which different persons are placed, and especially to the quantity and quality of aliment. We may easily discover general maxims relative to our conduct in a state of health, but the particular application of them must be determined in every individual case. A dish which oppresses a weak stomach, may nevertheless be wholesome for another, and a small portion of hard, indigestible food, will not be very detrimental to a sound constitution.

I shall

I shall now proceed to specify those alimentary substances which are unfit for infants, partly for want of their first teeth, and the consequent inability of chewing them, and partly also on account of their properties, but more especially because such dishes are generally given to them in a proportion calculated for adults. Hence, on these occasions, the nature of infancy ought to be duly considered; nay, the external appearance and size of a child point out the necessity of attending to such distinction. Farther, we ought to be guided by the peculiar constitution of the infantine body; for children of solid and rigid fibres, firm muscles, and of a lively and active disposition, naturally digest a larger quantity of crude aliment than those who are delicate or bloated, whose countenance is sickly and pale, and whose eyes are dull and heavy.

The appetite of healthy children is the safest guide with respect to their diet. If we have not, by our own mismanagement, contributed to extinguish this instinctive criterion, we may fully rely on its accuracy. To afford the reader a specimen of the manner in which the combined faculties of digestion and assimilation become impaired in our young generation, I shall present him with the following picture.

Scarcely is the infant a few days old, when we begin to cram it with dainties, confectionary, and food of every kind, in promiscuous succession. If it

fortunately survives the first year of its life, anxious parents or officious nurses think it their duty to allow it small pieces of meat, bread, cakes, &c. with which it is overloaded, so that the bad effects of this practice soon become evident; for every thing contrary to Nature must necessarily be detrimental.

Children are generally permitted to eat a little of every dish furnished for the table; nay, they are even suffered to taste brandy. Unguarded parents frequently ask, "What will my dear child relish?" and the most palatable things, however expensive, are presented to them at their mere desire. Before a child can pronounce a dozen words, it is made acquainted with double that number of dainties. Although no pains be taken to instruct it in the vocabulary of the kitchen, it soon learns to interpret its wishes by signs, and begins to understand how much its cries and fretful demands are respected. Can there be a more certain method of teaching children every species of ill manners, than by giving them such lessons, and anticipating their earliest wants in the necessaries of life? There is no doubt, that by this conduct a deep and lasting impression is made on the moral character of infants.

The characteristic of childhood is simplicity; an attribute which should be studiously preserved as the first law with respect to aliment: but why, let me ask, are the wants of children increased? They

They stand in need of no other but a simple and artless nutriment; with which they would be easily satisfied, if they were not intruded upon, with a variety of improper substances, both in a liquid and solid form: they would without reluctance see others eating such delicacies, if those to whom they are agreeable, were not so imprudent as to praise them in their presence: thus it happens, that their desires are continually excited. Weak-minded parents cannot bear the crying of infants, and the food obtained by tears doubly stimulates their palate.

For such as are under the influence of disease, we cannot ascertain the proper quantity of food by their vitiated appetite. Yet, when speaking of disordered children, I do not allude to those only who are confined to their beds. Their appetite is sometimes depraved, and on account of the great irritation subsisting in the stomach, they are with difficulty satisfied: the additional allowance of food tends to their ultimate destruction, inasmuch as it does not yield nutriment to the body, but increases the disease. It has been frequently remarked, that they evince a voracious appetite for the most indigestible substances, as well as for potatoes, porridge, fat, oil, butter, pickles and other acids; this longing is generally a forerunner of scrophula, the rickets, and consumption. Such preternatural cravings, therefore, ought either to be entirely checked, and no

inducement offered by example, or but a very small quantity should be given at a time.

I shall now specify a few of those articles which, *under certain conditions*, are injurious to children; yet I request the reader to consider the following heads as specimens, rather than as a complete view of the subject. For, whoever has paid due attention to the principles before stated, may dispense with a particular bill of fare.

1. *Pap and Dumplings.* That mucilaginous mass prepared of flour and water, or milk, is better adapted for pasting paper than for feeding infants. Unfermented meal generates a quantity of air, as, by mixing it with water, there arises an imperfect fermentation, extremely injurious to the feeble stomach and bowels, which are literally pasted up with this indigestible dough, so that they produce acidity to a very alarming degree. Thus we may account for the cause of innumerable maladies attendant on infancy: the vessels of the abdomen are clogged; the body becomes inflated, and the whole frame is reduced to a skeleton; next follow costiveness, spontaneous vomiting, orange-coloured and green stools; extreme debility, and convulsive fits; nay, even worms and the stone are occasioned by this incongruous diet. HILDAN, the anatomist, on opening the body of a child treated according to this baneful plan, found the orifice of the stomach in a state of mortal induration. And though it

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is often maintained, that numberless infants are reared upon porridge or meal pap, who nevertheless thrive and become adults, yet this argument is no proof of its salubrity: those who are at all inclined to reflect, will not listen to such absurd reasoning. With equal propriety it may be observed, that thousands of patients remain alive by the use of quack medicines; but what sensible person would expose both health and life to the danger of being poisoned by ignorant pretenders?

The injurious effects which result from the use of flour pap, are easily explained; but their severity is considerably augmented, by the manner in which this food is usually prepared. Whole saucepans of porridge are generally boiled by the lower class of country-people, in Germany, several days before it is wanted; and as often as the child is to be fed, a lump of butter is added to the portion, which is warmed up and forced into its mouth by the nurse's finger. It is needless to dwell upon the noxious tendency of such proceedings.

2. All *fat provisions* are hurtful, such as fat meat, or any dishes prepared with melted butter, oil, or suet. Even adults, when eating them to excess, become subject to obstructions, oppression of the stomach, and the heartburn. As those hardy sons of Nature who are once accustomed to that substantial diet, for instance, sailors and husbandmen, are alone exempt from its inconve-

niencies, we may easily imagine, how pernicious it must prove to the tender stomachs of infants. It is besides a false notion, that the digestibility of fat substances is promoted by drinking wine or brandy after them; for, comparatively speaking, this remedy is little better than pouring oil into the fire. It is true, that nausea and eructations may for some time be suppressed by stimulating drinks, but the process of digestion is nevertheless interrupted. For the violent stimulus of spirituous liquors preternaturally excites the action of the stomach, so that the nutritive particles of food cannot be properly extracted and assimilated; the aliment, therefore, remains in a crude state, or passes off undigested: besides, such stimuli, if frequently repeated, cannot fail ultimately to produce inflammations of either the stomach or bowels. Butter may also be classed under this head; and it is highly improper to use it liberally in the spoon-meat of children, or to indulge them with a large proportion of it spread upon bread.

3. *Pastry* of every description, as well as confectionary, habitually eaten, is so far detrimental to young people, as these dainties stimulate the palate without satisfying the appetite, and thus induce gluttony. The injurious consequences of such excess generally become evident in diseases of the breast, arising from viscidity, and a debilitated stomach, in which distressing cases parents

endeavour

endeavour to soothe and benefit sickly children, by allowing them additional quantities of sweet-meat, cakes, tarts, &c. On such occasions, the ruinous effects appear with equal speed and certainty, as they are obvious in the hooping cough. Experience every day confirms, that, after eating an immoderate portion of cakes in the forenoon, the appetite for dinner is spoiled; because this food enfeebles the digestive organs, and renders them unfit to perform their offices.

4. *Cheese* is with difficulty digested; and as it is in general of a tough nature, it forms hard lumps in the stomach, and is not easily dissolved, unless assisted by strong exercise: hence it is calculated only for vigorous consitutions. When eaten in any quantity by children, it is apt to occasion the stone or gravel.

5. *Potatoes* possess a very viscous mucilage; they ought not to be given to infants during the first year of their lives, and but sparingly in the second*. After that period they will be more readily digested; as children then begin to take a

* There is, however, no objection to the meal or starch obtained from this excellent root; which forms an useful aliment in the pap of children, at the time of weaning them, or previous to the change from their liquid to a more substantial diet: a very palatable and nutritive dish may be prepared of the flour of potatoes, and a little sugar of milk dissolved in boiling water.—*Recherches sur le Vegetaux Nourrissants, par* PARMENTIER.—Compare also, CHAPTAL's Elements of Chemistry, vol. iii.

greater

greater degree of exercise. In short, potatoes may be used as daily food by those who are occupied in manual labour, or strong muscular motion; but others should only eat them occasionally.

6. *Fruit* is justly recommended as wholesome; yet it deserves to be remarked that, on account of its acidity, children are the least able to bear it in excess, because their digestion is frequently impaired at the expence of other secretions, such as those of perspiration, and the discharges by stool, which by such nutriment are promoted and increased. Hence fruit is injurious in those infantine diseases which are decided by critical efforts of the skin; for instance, the small-pox, and the measles. It is therefore an opinion equally unfounded and mischievous, that children cannot eat too large a quantity of fruit; and impressed with this notion, it is forced upon them against their inclination, and frequently as a substitute for more wholesome nourishment. Instead of such officious interference, we should act more prudently, by leaving the choice entirely to be determined by the natural appetite, which will instinctively guard us against committing excess. But to young children I would allow fruit with a sparing hand, because its acid is too strong for their tender stomachs; and if eaten in abundance, it readily occasions flatulence, nausea, vomiting, and loss of appetite, as it is too cooling,

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and much disposed to fermentation. Plums, sour cherries and apples, are incongruous with a milk diet. All fruit given to children should be ripe; and some attention is necessary to the cleanliness of the peel, if it should have passed through the hands of strangers, or have been stored in objectionable places *.

7. It is a bad custom to give children no other but warm beverage, such as tea, or soup; these liquids proving injurious, by stimulating and expanding the stomach. Hot drinks of every kind are of a nature still more pernicious, as there are instances where children have been literally scalded by them; but, on the other hand, cold food is equally improper: their drink should be lukewarm, and if possible, exactly of the temperature of milk from the mother's breast. As the body increases in strength, and becomes able to endure the effect of external cold, the fibres of the stomach acquire more energy, and cool liquids better agree with it. Cold water, which has stood for some time in a room, or which has been previously

* Our author mentions, in his German Treatise on the Diseases of Children, an instance of an infant poisoned by not cleaning the contaminated peel of fruit; yet such cases, if they at all occur in this country, must be uncommonly rare. Hence I would prefer giving children apples, pears, and plums, *without* peeling them; as Nature seems to have intended the peel and stones (or kernels) to be eaten together with the fruit, in order to promote its digestion.—*Transl.*

boiled,

boiled, and acquired a proper temperature, is an useful beverage for children during the first half year of their existence. After that period, there is no necessity to warm their drink, as it ought to have only a moderate degree of heat. Liquids taken too cold, produce a violent stimulus, on account of their sudden contraction of the coats within the stomach. Soups should not be given to children in abundance; for, by their expansion of the stomach, the digestion of more solid food is impeded.

8. *Coffee* is an article which children, and even adults, might well dispense with. But it is to the ladies that we are indebted for this unfortunate habit (in Germany); and I am almost inclined to believe, that the forbidden fruit was that of the coffee-tree. The female sex insist upon indulging infants with their favourite beverage, from the idea that it renders them vigorous and chearful; it is therefore frequently given to them from the time of their birth. But in their early days, coffee, and every kind of spirituous liquors, are equally pernicious. It would be a real advantage to children, if they could forever remain ignorant of its existence. The high price of this foreign drug, which in Germany, like tea in England, has become, in a manner, one of the necessaries of life, is a heavy tax upon the income of families. In order to preserve them as long as possible from its baneful effects, they should be accustomed

accustomed to milk or beer-soup for breakfast, and they will not easily exchange it for coffee.

9. *Wine*, *brandy*, and *strong-beer*, ruin the constitution of children, and ought by no means to be allowed.—Even the growth of young dogs is impeded by giving them spirituous liquors.—What, then, must be the consequence when they are administered to infants? It is in fact a most detestable custom, by which they are initiated in drunkenness: if their appetite be once stimulated, they will employ every means of acquiring this deleterious liquor, in the secret and immoderate enjoyment of which they ultimately fall victims, either to disease or the grave. A melancholy instance of this kind occurred lately at Brunswick: a girl, nine years of age, was left alone in a room, her mother, shortly after hearing her cry, rushed in, and found her lying senseless on the floor, in strong convulsions, which increased every moment; her face changed to a livid hue, and a most violent heat issued from her body. At length a brandy bottle, which had contained nearly half a pint of that liquor, was found empty, and sufficiently accounted for these fatal consequences. A physician was immediately sent for, and every possible means tried for several hours, but in vain; for, on the following morning, the unfortunate child died a most lamentable death. This girl was uncommonly lively, and much addicted to spirituous liquors; she had most probably observed her

her parents make use of the bottle, or they had, perhaps, imprudently given her some brandy to taste, without considering, that they thus stimulated her palate, and familiarized her to this baneful liquor.

On some injurious Practices in the Feeding of Children.

It is necessary that mothers should be made acquainted with those customs and abuses, which are practised by nurses and servants, that they may be enabled to avoid or prevent them. I think it a duty incumbent on me to request their attention to the following observations, from which they will discover many latent causes of disease, and early death of their children.

1. All vessels in which their food is prepared, or out of which they are fed, must be kept as clean as possible. The consequences arising from uncleanliness and inattention, are far more considerable and dangerous to children than to adults; for a very small portion of any pernicious substance which is suffered to remain in the utensils, or mixed with their food, is sufficient to occasion indisposition, or may even endanger their lives.

2. Neither milk nor pap should be kept in an earthen dish which is badly burnt or glazed, nor in any vessel made of copper, brass, or tin; as they soon become sour, and imbibe the poisonous particles of the lead, which are readily separated,

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or of the pewter, which is easily dissolved. In copper and brass vessels, verdigrease is formed, and the poison enters into the system together with the food. Though the effects of this virus are not immediately observed, they are nevertheless certain; and however small the portion may be, which is daily received into the body, the deleterious particles are progressively fomented and increased. The consequences at length appear, the child droops, and is afflicted with an incurable consumption, which terminates in death. The real cause being concealed or mistaken, recourse is had to means, the very reverse of those which ought to be employed. In this manner, children are poisoned by the sucking bottles, and little mugs made of pewter.

3. One of the most disgusting customs is the sucking bag, which is given to a child for the double purpose of nourishing and composing it. Many a poor mother will tear a rag from an old shirt, or a clout, which she has found, perhaps in the street, and which may contain the remains of a venereal contagion: of this she makes a small bag, which is filled with bread, milk and sugar, and then given to the child to suck. If the infant happens to drop this rag on the ground, it is presented again, though covered with dirt: a number of flies settle upon it when the child is alone, which but the moment before may have quitted a saucer of poison. Nor

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are these the only bad consequences: the bread contained in this bag turns sour, and the child may sometimes swallow the whole rag, and be choaked by it. The gums become sore by the acidity of this mixture, and the points of the newly protruding teeth are blunted, become loose, black, and fall out: the child is at length afflicted with various eruptions in the mouth; and thus the basis is laid for that terrible disorder, the thrush.

This abominable custom, alas! still continues in various parts of Germany; where the superstitious nurses are firmly of opinion, that it would be impossible to rear up a child, without the use of this rag; and no persuasions of the Faculty can induce them to relinquish so mischievous a practice. Let me entreat all mothers, as well as every person employed in the care of children, not to continue the use of this bag longer than the first eight weeks, or what is still better, to give it only at the time of drinking; as many nurses imagine that they should not administer any drink without using this bag, lest some of the liquid may pass into the trachea, or windpipe. This may certainly happen, when the child is suffered to drink out of a saucer, or any wide vessel; but when a glass with a long neck is used, no danger need be apprehended. It is absolutely necessary to wash the bag, and not suffer particles of bread, biscuit, roll, &c. to remain

main in it too long; it ought to be filled with fresh food every time it is used. Finally, this bag should not be steeped too often; for, with the liquid, the child imbibes a quantity of air, which occasions flatulence and gripes.

It is difficult to wean children from the sucking bag, if they have been accustomed to it beyond the first year; as they will then suck every thing that comes before them; they put their painted toys, and every rag they can get, into their mouths, by which they incur great danger of suffocation. But a practice of the most injurious and disgusting nature, is that of many nursery maids, aunts, and grandmothers, who suffer the child to suck their lips. I had an opportunity of observing the decay of a blooming infant, in consequence of having sucked the lips of its sickly grandmother for upwards of half a year. It was saved only with the greatest difficulty, and still remains feeble, pale, and consumptive. By this destructive habit, the pure fluids of the child are contaminated by the humours of old, unhealthy, venereal, and scorbutic persons. The consequences may easily be imagined.

4. Another filthy and unhealthy custom, is that of chewing the food of infants. This is done not only by the mother, but likewise by strangers, old nurses, and people who have foul humours, are scorbutic and venereal, or who may be affected with carious teeth, and an offensive breath.

Thus children are effectually inoculated with the worst of diseases. I knew a girl who, when two years of age, was infected by a servant's chewing her victuals. The latter was afflicted with blotches on her body, and other marks of the venereal virus; but this horrid disease did not appear upon the child till after a period of nine years.

It has been questioned, whether the mastication of victuals for a child by its young and healthy mother, is so very injurious; or whether, by the admixture of her healthy saliva, digestion and nourishment be promoted, till this process can be accomplished by the teeth of the child.—I am of opinion, that when the mother is in perfect health, she may attempt this mastication; but even then she ought to possess good teeth, and previously wash her mouth with pure water. But, if a mother has the least affection for her child, she will not suffer the above process to be performed by strangers.

On Sleep.

New-born children sleep the greater part of their time, and the necessity of it is diminished only in proportion as the powers of the child are unfolded. Sleep, being an operation of nature, cannot be obtained by art, without producing the most injurious consequences.

The generality of nurses, partly from idleness, and partly with a view of acquiring more leisure for

for other business, have recourse to various means, in order to lull children to sleep, particularly the sweet bag before described; they also wash the infant with brandy, place paper impregnated with saffron under its head, and gently tickle its belly, or other private parts of the child; all which methods are of a nature highly injurious.

A custom extremely dangerous, is to suffer the child to sleep with the sucking bag in its mouth, as there are instances where suffocation has been the consequence of its being swallowed; nor is this the only evil arising from such a practice; for the continual moisture and acidity produced in the mouth by the bag, occasion a variety of eruptions on the tongue and palate, soreness of the gums, caries, and other injuries to the newly projecting teeth. But, whoever is prejudiced in favour of such a bag, ought at least to remove it from the mouth of the child as soon as it has fallen asleep. The habit of washing with brandy, and the use of saffron paper, tend only to stupify the infant; the action of these substances being similar to that of all other soporifics. All titillation excites a premature sensuality, and ought therefore, in a moral as well as physical point of view, to be condemned. There are some internal medicines, as a decoction of poppy heads, laudanum, mithridate, Venice treacle, Philonium Romanum, and the common composing powders, which certainly induce artificial sleep; they stu-

pify the head, render children indolent and heavy, and are frequent causes of convulsions and apoplexy, to which numbers fall sacrifices. For these reasons, I earnestly entreat every mother who has the least affection for her child, to pay particular attention to the conduct of her nurses and servants.

No medicine whatever ought to be administered, with a view to induce children to sleep, not even Gaskin's powder, magnesia, or crab's claws, unless prescribed by a regular physician.

The mother or nurse should endeavour to discover the causes which prevent the infant from sleeping. These may either exist in the child itself, or depend on adventitious circumstances: thus it may be afflicted with gripes, costiveness, or flatulence; a pin in its clothes may give it pain; it may be hungry, too tightly dressed, or have wetted itself. Besides these, the apartment may be too warm; the child may be almost buried in the suffocating warmth of a bed; or it may not have been in the open air, may have slept the whole day, and must of course be restless at night; the chamber may be too light, or a candle placed opposite to the bed, &c.

But should the causes of sleeplessness be found to exist in the body, a clyster may be applied in the first instance, or the child put in a luke-warm bath, and immediately after removed to bed. If these means prove insufficient, a physician should be

be consulted respecting the true cause of its uneasiness; yet it would be improper to insist on his prescribing a composing medicine, as he ought to be able to ascertain what remedy should be applied: he is well aware that sleeplessness is, in general, the consequence of a disease; the cause of which must previously be removed, and then the natural sleep will gradually return, without the aid of narcotics or soporifics. Whoever is capable of reflecting, will require of the physician only the restoration of the patient, and trust to his judgment the propriety of the means he may adopt. Another wrong expedient to induce children to sleep, is by promising them a variety of things, when they awake in the morning, because we are apt to promise more than we are able to fulfil. Thus their desires are increased; and at length it will be necessary to pay them for sleeping. On the other hand, to menace and punish children for not sleeping, is highly improper; and upon no account should they be terrified. To induce artificial sleep, is as injudicious as to compel the child to eat; a treatment equally absurd and barbarous. The enjoyment of free air and exercise are the best means of promoting sleep; as young children are not subject to mental perturbation which may deprive them of rest. An infant who has been in the open air the whole day, or has had considerable exercise, will readily sleep undisturbed during the night.

To sing infants asleep is an innocent method; but I would advise mothers not to continue it beyond the first year, because after that period they become so much accustomed to it, that they will require it as a duty, and oblige the mother or nurse to sing every evening for half an hour or an hour, before they are disposed to sleep. As children grow up, they frequently prattle a long time after they are put to bed, and remain awake for several hours. To prevent such habits, either their questions ought not to be answered, or by speaking to them for a considerable time without interruption, they at length will become weary, and gradually repose: another method is, to let the child talk till it is exhausted. Many ignorant nurses promise the child a variety of things, or speak of Christmas-boxes, and other enticing articles it is to receive, and the idea of which, instead of alluring it to sleep, only render it more lively.—I would here recommend nurses to relate a story, or read a passage from a book; for there are many dull compositions, which would more effectually answer the purpose of promoting sleep than laudanum. This is certainly no small merit of authors!

Violent rocking is also an imprudent method of procuring sleep. The motion of the cradle stupifies the child, and is in no respect different in its effects from the practices before mentioned; a gentle and regular rocking will not, however, be

be detrimental. Yet as children are easily habituated to a practice in which much time is unnecessarily wasted, it would be more prudent not to introduce it in families.

When it is deemed necessary to awaken a child, it should be done by a gentle touch, and mild address; but no violent means ought to be used, nor should it be permitted to sit up till a late hour at night. It is wrong to accustom young people to remain half the night in company with adults; but an exception to this rule may be granted, when they are amused by chearful visitors: this, however, is an indulgence which should be allowed only on particular occasions.

To awaken children suddenly, and without necessity, from a sound sleep, is imprudent; but to frighten them in their sleep, is extremely injudicious, and may occasion the most dangerous spasms; for the terror produced by surprize, must naturally act with a double violence. They should never be awaked without an absolute necessity; as it is better to let them sleep too much than too little.

Should the child awake suddenly with a scream, there is reason to apprehend that it is either indisposed, or in want of food; that perhaps some insect has stung it, or it is lying in its impurities; the heat may be too intense, or the bed covering too heavy: consequently this interruption of its rest may proceed from some want, or pain, and not

from a sufficiency of sleep. By the removal of these causes, the child will again repose.

If the infant has had sufficient rest, it will awake perfectly composed, without crying, and hail the new-born day with chearful smiles.

One of the most injurious and unreasonable practices, is that of shaking children when they awake from their sleep, bringing them suddenly into a strong light, speaking roughly to them, or shouting in their ears;—the violent irritation of their tender nerves may occasion spasms, and other dangerous consequences; not to mention the absurdity of such treatment. Hence they ought to be awakened with the same gentleness which is used to lull them asleep. As the first impressions a child receives on awaking, have a considerable effect on the mind, we should endeavour to render them agreeable, by presenting to it none but pleasing objects, and assuming a chearful and mild address; for this general diffusion of joy will at once decide its temper for the whole day. Children have been observed to awake in the most happy humour on the arm, or by the side of the mother—and what parent would not be desirous of enjoying this pleasure as often as possible! MONTAIGNE, from paternal affection, contrived it so, that his infant son was always awaked by the sound of a musical instrument. Such tenderness, however, ought not to be extended beyond the first years of life; because after that time, it is

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apt to produce a too sentimental and irritable turn of temper, which is no small misfortune to an inhabitant of this turbulent world.

The most proper posture for a child in bed, or in the cradle, is that of lying straight upon its back, and not too high with its head, as the latter is a curved and unnatural situation, which, if continued during sleep, must unavoidably injure its growth, and deform the body. Nor should infants be suffered to remain sitting when asleep; for the consequences of such neglect are, distortion of the spine, compression of the abdomen, and congestions of the blood towards the head. If children are once accustomed to sleep in this unnatural posture, they cannot abandon it during life.

The best inducement to sleep is fatigue. A person who takes proper exercise, will sleep more comfortable on a straw-bed, than another on a bed of down.

Sleeping on feather-beds is attended with numerous disadvantages; I therefore recommend this point to the serious attention of every mother; but at the same time entreat them to peruse the whole of my remarks on the repose of children. I hope they will not misunderstand me; and if habit should still biass their judgment, I request them to read the following conditions and restrictions, before they form a premature

mature opinion respecting any unreasonable demands.

Feather-beds, from their elasticity, in yielding to pressure and the weight of the body, give it a crooked position; the spine becomes curvated, the head reclines backward, the breast projects, and the vertebræ form an arch. No situation can dispose the body more effectually to distortions, than that now described. For a confirmation of this argument, we need only observe a child on such beds in the morning, when it has changed its situation, and we shall find it in this unhealthy position. These beds are the principal cause of children growing crooked; and every person capable of reflecting, may form an idea of the consequences. But I shall say a few words more on this subject, and expose another great injury thence arising: on account of their extreme warmth, they overheat and relax the body, which lies, as it were, in a continual vapour bath; this induces too great a degree of sensibility on the least impression of the air, and a premature sexual instinct; while, at the same time, feather-beds retain the perspirable humours; and as they uncommonly promote perspiration, the danger of taking cold is very great, as soon as the child is uncovered. Thus, in the cold nights of winter, children become afflicted with catarrhs, rheumatisms and coughs; because they lie more restless than adults. Extreme caution is there-

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fore necessary to prevent them from uncovering themselves, when labouring under diseases, and particularly the measles, or scarlet fever; so that for this purpose alone some person ought to sit by the bed-side, and cover them as often as they throw off the clothes; for, by the effect of cold air, the eruption may be suddenly repelled. In many nurseries, a wood-fire is kept during the whole night; a practice which corrupts the air of the room, and disturbs the rest of the child; which is sometimes tucked up in the bed, so that it cannot stir, and lies enveloped in its own vapours, almost in a state of suffocation. Those children, however, who are unaccustomed to feather-beds, are not exposed to such consequences; and he who reposes on a mattress or paillasse, is not in danger of taking cold, because he remains in a more uniform temperature. Feather-beds attract and retain the vapours produced by perspiration, and thus promote their re-absorption by the body: and if such beds are not preserved in the most cleanly state, they are at once disgusting and unhealthy.

The most preferable couch for children, is a mattress stuffed with horse-hair, bran, or moss; on this, they will enjoy a more wholesome and comfortable repose, and awake with increased vigour.

However injurious the heat of feather-beds may prove to adults, I would prefer them for infants under two years of age, because till that period they require a considerable, though not immoderate,

moderate, degree of warmth. But after that age, particularly in summer, the beds should be exchanged for mattresses. When a child is six months old, it may be allowed a pillow of moss or horse-hair, either of which is more beneficial than feathers: its head being continually warm, is a circumstance which tends to produce congestions of the blood towards that part. This is a source of many diseases, and increases the disposition to convulsions and apoplexy; but the fatal consequences are more evident in violent fevers, as well as in the small-pox and measles; for, in these diseases, the head is in a continual perspiration, while the other parts of the body generally remain cold.

In summer, a thin coverlid filled with cotton, horse-hair, or dried moss, may be added to the couch; and if children are not accustomed to sleep on mattresses, when they are three years old, it will be difficult to habituate them to such a couch after that period; for, as we readily adopt a luxurious and debilitating state of life, a feather-bed should be granted only during winter.

In the height of summer, however, a thin coverlid only should be used; and this is the most proper season for accustoming children to the use of mattresses. The heat of feather-beds relaxes them by excessive perspiration, and their bodies become, in a manner, digested. From the chilliness of the nights, they are much exposed to colds,

colds, and all their consequences, such as continual catarrhs, and debilitated lungs; while the foundation is laid for consumptions, or they become subject to colics and diarrhœas.

But should parents persist in the use of feather-beds for their children, they ought at least to keep them as clean as possible. In summer, they should be well beaten once a fortnight, and in the winter, once a month; the linen and coverings should be frequently changed, and the beds properly aired; for, notwithstanding the precaution of clean coverings, a bed in this respect neglected, will become the receptacle of impure and mephitic vapours.

By a number of feather-beds placed on each other, the injurious consequences attending their use are increased. Children should be but slightly covered; for the debility consequent on excessive perspiration, the danger of taking cold, the bad effects of a crooked and deformed posture of the body, and the premature excitement of the sexual instinct, will be in exact proportion to the debilitating heat of the couch. We certainly confer no benefit upon infants, by enveloping them in beds of down: a sound and healthy sleep is attained by very different means. The most proper couch for children consists of a good mattress filled with straw or fresh bran; a couple of blankets, and a clean sheet: the straw, however, ought to be occasionally renewed.

Nothing

Nothing is more injurious than to keep children too warm. Besides the unhealthiness of a fire in their bed-room at night, the expence of fuel might be saved; but during any illness, it is highly improper to let them sleep in a bed-chamber purposely heated. In the small-pox, we may easily observe the improved state of the child at night, and in the morning, when no fire has been kept in the room. Yet few persons are capable of judging, that it would be preferable to regulate the temperature of the room according to the state of the season: either no fire should be made, or, if in the depth of winter, the nursery should only be temperately warmed during the day. If parents would pay attention to the bodily state of their children, under certain circumstances, they might receive the most proper instructions for their treatment, provided they availed themselves of the hints of Nature.

If, however, a fire in the apartment should be deemed absolutely necessary, on account of the attendants, or for the purpose of preparing food and warming the beds, it ought to be but moderate; and at the same time, care should be taken that the couch of the child may not be too near the fire-place; and that the bed be properly defended by means of a screen.

By the use of heated stones, and bottles filled with hot water, children become delicate, and the pernicious effects of feather-beds are increased. It

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is truly an afflicting scene, to be surrounded with feeble and emaciated children, who require the attention and nourishment of chickens: and though infants whose vital powers are faint, and almost extinguished, are in want of artificial heat, yet in those who are more vigorous, we ought to abstain from such means as may render them weak and miserable beings, who tremble at every gust of wind.

But whence does this propensity of mothers arise, by which they spoil and enervate their children? Alas! I am induced to think it is, because they have themselves been treated in a similar manner: hence they imitate their parents, by whom they are admonished to pursue the common routine in the management of their own children. This is the result of an imperfect education of females. Consider, ye affectionate mothers, the beneficial influence of your conduct on posterity, by inuring your daughters, with judgment, to the hardships of infancy! Abandon the warming bottles to the aged and infirm: they are highly improper for sprightly and active infants, who are amply supplied with warmth by Nature.

Children should not be suffered to sleep in their clothes, which heat the body, and occasion distortions. In winter, they may lie in a light and loose night-gown, but in summer in their shirts. During their infancy, a thin night-cap may be allowed,

allowed, but as they advance in age, it ought to be discontinued. Nothing is more detrimental than fur caps, as they tend to increase the determination of blood towards the head.

A custom which deserves to be censured, is that of putting several children into one bed: by lying together, the heat and perspiration of their bodies are increased, and they may easily injure themselves, while asleep, as one may lie upon the body of another. Besides, this practice becomes, in a moral view, still more objectionable, when they have attained a certain age.

To suffer healthy children to have intercourse with those who are diseased, or with disordered persons in general, is the most certain way of injuring their health, communicating to them contagious maladies, and corrupting their humours. Equally injurious is the custom of allowing children to sleep with aged persons; for, in this case, the decrepit body of the latter attracts the vital powers of the former. I knew an instance of an old woman, who was the cause of destroying the health of several young girls whom she had made her bed-fellows: they were all afflicted with a lingering consumption. A child should, therefore, never be permitted to sleep with its aged relations.

Nor should young people be put to bed immediately after a meal; for, with a full stomach, it is impossible to enjoy a perfect sleep.

During

During the first years of their life, children may be indulged in sleep as long as they are inclined to it; and the more natural and undisturbed their repose, the more beneficial it is in its effects. Sometimes, indeed, infants are drowsy, and overcome with sleep; this, independently of any internal complaint, may arise from their being too tightly dressed, and in consequence of which they become subject to congestions of blood towards the head: where this proves to be the case, the dress must be immediately loosened. It will then also be useful to agitate the child cautiously on the arms, in various directions, or to clap it gently on the back with the palm of the hand, by which the flatulency will be dispelled.

After the first year, when the child has acquired a stronger constitution, a greater degree of exercise becomes necessary, particularly in the open air. At this period, the child should be kept longer awake during the day, which is best effected by frequently carrying it out into the air; as by this means its rest will be less disturbed at night. It must be attributed only to a bad custom, when children cannot be induced to sleep half of the night, to the torment of their nurses and attendants. If they have not been habituated to receive food during the night, they will not easily awake; in the contrary case, it becomes to them a matter of necessity, to call at all hours for victuals or drink. No solid food,

but drink only, should be given on such occasions; indeed, after the first year, the most proper beverage would then be pure water; which will prove the best method of weaning them from eating in the night. It would be preferable, to satisfy their appetite between eight and nine o'clock in the evening, that they may not feel the return of it till the next morning.

In the first and second years of their life, infants may be permitted to sleep an hour or two during the day, perhaps from two to four o'clock in the afternoon; for, at this period, they require additional repose. I have known instances of children who suffered materially in their health, by being too early deprived of their accustomed portion of sleep in the day-time; for, on account of their increased vital action, and consumption of life, they require proportionally more sleep than adults.

As soon as children are fatigued, they should be put to bed; running, playing, and other exercises, are means of promoting sleep. If the weather be fine, they may even in the day-time be indulged with sleep in their little carriages, which should be placed in the garden, under a shady tree, but with an attendant near it, in order to prevent any injury from animals, insects, &c.

I shall now proceed to state my own observations upon cradles. Whatever objections have been made to their use, ought properly to be applied

plied to the violent and irregular method of rocking and shaking them. This injudicious practice is attended with commotion of the brain, and makes the child stupid, indolent, and drowsy: there have been instances of children who, by violent agitation, were thrown out of the cradle, and received such injuries as rendered them deformed. It is likewise detrimental to infants, on account of the draught of air which it occasions, particularly to those of a weak, delicate and sickly habit; it may also be the cause of suppressing cutaneous eruptions in the scarlet fever and measles, the consequences of which frequently manifest themselves in convulsions, apoplexy, and death.

A gentle and moderate rocking is, however, less prejudicial, as it bears some resemblance to the waving motion to which the infant has been accustomed in the womb; besides, a child lies far more easy in a cradle than in the rude arms of its nurse. As a remedy for numerous diseases, the ancients made use of swinging beds or hammocks, which they occasionally put in motion. Hence, in the rickets, or consumptive disorders, rocking cannot but prove highly beneficial; it is likewise a good method of appeasing young children in various complaints to which they are subject during their infancy. I must, nevertheless, entreat my readers to attend to the following conditions, by which the abuse of the cradle may

not only be prevented, but this necessary appendage of a nursery be employed with advantage.

1. The cradle should on no account whatever be rocked with violence; it ought but gently to be moved.

2. The rocking must not be continued the whole day, or for several hours at a time, but only at certain periods; otherwise the child will be lulled into a continual stupefaction and lethargy.

3. In proportion as the infant advances in age, the rocking ought to be gradually diminished. After the second or third year, the cradle may be altogether dispensed with:—a child will repose without rocking, when it has had much exercise during the day. Besides, if it be accustomed to the motion of the cradle for too long a period, it will not be induced to sleep by any other means.

The cradle or bed for infants should be provided with net-work, to prevent them from falling out when asleep.

Curtains around the cradle are attended with the disadvantage of surrounding the child with an atmosphere corrupted by perspiration, which it again inhales: and whatever may be the colour of the curtains, the eyes of the infant are injured; for, by looking from the dark cradle towards the light apartment, the pupil of the eye is dilated, and by this stimulus, vision is certainly impaired.

CHAP. III.

ON DRESS.

THE dress of children should be so contrived, as to be neither too warm nor too tight; that the influence of the air may not be prevented, nor the motion of the body in the smallest degree impeded. In the present enlightened age, more attention, than formerly, is paid to a proper method of dressing infants, since we have been convinced of the injuries resulting from a contrary practice, when the ease and health of our progeny were not consulted. Their whole dress ought to be regulated according to the preceding observations. Shape and make are merely accidental, but the regard to health is essential.

Happily, in many parts of Germany, particularly in large towns, the injurious method of swaddling is now abandoned; and it would be almost superfluous to dwell on this point, were not this barbarous custom still prevalent in its full extent, in the vicinity of my residence. What purpose can be answered, to keep a child, as it were, in fetters, by wrapping up the whole body

in clothes, which are fastened about the head, arms, and legs, with a number of strings, so that the poor infant is incapable of stirring, and lies motionless, not unlike a mummy? It was certainly more happy while confined in the maternal uterus; but, having gained its liberty in the world, mankind are so infatuated as to torment it by a more rigorous confinement. It is a futile pretext for adopting this expedient, that the infant may not injure itself with its little limbs. Young children, indeed, sometimes scratch their faces with their sharp nails; but, a short time after their birth, the sense of pain will deter them from repeating this practice; and as, during the first days of infancy, the attention of some person is always directed to the child, it cannot do itself any material injury. Indeed, the odious custom of tight swaddling is continued merely from fashion, or because the parents were themselves treated in a similar manner. Persons incapable of reflecting on the bad consequences of this habit, are equally deserving of pity and censure. Savages certainly display more judgment in their treatment of infants, than our enlightened Europeans; for, by our method of swaddling, every degree of natural motion is prevented; the use of the limbs is retarded, and the growth of the body necessarily checked. The strings are sometimes tied so close, that the child can scarcely breathe, and is in danger of suffocation, if they be

be not immediately loosened; the perspirable matter is suppressed and retained, which occasions a frequent flow of urine, and a continual discharge from the nose; the glands about the ears and jaws become tumefied, in consequence of the collected impurities, which cannot be discharged by any other passage; the violent compressure of the abdomen causes congestions of the blood towards the head, and the circulation of the fluids in general is impeded. By such means, the growth of the child is retarded, and its body debilitated: it now makes violent efforts to disengage its limbs from these fetters, by which they receive a crooked direction, so that ruptures and deformity are frequently the consequences. Mothers, when your suffering darlings are but for a moment released from their confinement, have you never observed their joyful smile, and their natural inclination to extend, and move the liberated limbs?—how little do you appear to be acquainted with the tender appeals of Nature, if you again resort to this torture! Away then with the detestable swaddling clothes; suffer the child to rest in loose garments, in which all its limbs are at liberty. The best method is to apply next the skin, round the abdomen, a roller six or seven inches broad. In winter, this bandage should be of woollen; and in summer, of linen cloth: thus dressed, the infant ought to be placed in the cradle, free from all constraint.

A child not accustomed to tight swaddling, certainly requires a greater degree of attention. It cannot, for instance, be left, like a parcel, in every convenient corner; but no sacrifice should be made to the indolence of nurses and servants, where the welfare of infants is concerned. The advantage attending a loose dress, is in another respect very considerable, namely, that immediately on perceiving a child to be soiled, it may be cleaned and laid dry, without any delay, by untying the numerous strings, and removing the troublesome pins.

Many nurses are in the habit of compressing and wrapping up infants as tight as possible at night, which prevents them from sleeping, and increases the misery arising from the absurd custom of swaddling. From the little attention paid to children, while asleep, they are in constant danger of an apoplectic fit; because the tightness of their dress renders them subject to congestions of the fluids towards the head.

It is farther an improper custom to let infants sit erect upon the arm, even before they are a week old. By a frequent repetition of such attempts, they have been observed to grow crooked: and in order that their parents may not be deprived of the pleasure of seeing them soon sit in an upright posture, officious nurses dress them in corsets, nay, even in laced stays; which the unfortunate beings are obliged to wear day and night. These

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are, without exception, the most effectual means of crippling their bodies. Thus the chest is contracted, respiration impeded, the abdomen compressed, the intestines are displaced, by the violence of pressure on a particular part of the lower belly; and in this unnatural manner ruptures are frequently occasioned. Whenever I observe infants carried about in corsets, or laced stays, I cannot help thinking that great defects still prevail in their treatment; nor can I on such occasions suppress my sensations of pity and regret.

The proper dress for children, besides the roller, ought to be a light jacket sufficiently large; of which, for the sake of cleanliness, two or three should be kept in readiness.

As long as an infant's head is not provided with hair, it ought to be covered with a light quilted cap. Too warm a dress for the head promotes the accumulation of humours in that part, which is thus in a manner converted into a constant vapour bath; and the child becomes subject to every kind of eruption, the tooth-ach, cough, catarrhs, ear-ach, &c. By the growth of the hair, Nature has furnished the infant with the most proper covering, nor does it in summer require any other. When travelling in the depth of winter, a fur cap may not be improper; though, even at that season, it ought not to be worn within the house: a hat being sufficient protection against the cold of winter, and heat of summer. Hence, to bury the

the head of a child amongst pillows in the cradle, is extremely injurious; for, by this injudicious practice, a variety of complaints are fomented. A covering for the head, however, in winter, while children are growing, is very beneficial, provided it be not too heating; but, in this respect also, every excess must be carefully avoided. I have known an instance of a child, who, by being carried out in winter when it was only six months old, without any covering on its head, became subject to a difficulty of hearing.

To the question, whether infants ought to wear head-cushions, with a view to prevent accidents from falling, I am inclined to answer in the negative; as I should rather leave it to Nature to unfold the infantile powers. Children provided with a cushion, rely upon its defence, and proceed with less caution. But if they are taught to walk in the manner I shall afterwards describe, there will not only be no occasion for such an article of head-dress, but it will in fact prove an impediment: where, on the contrary, all artificial methods are resorted to, in order to effect this purpose, a cushion is of great utility, because they then frequently fall on their face.

The neck should not be incumbered with clothes in summer, but during winter some addition may be made to that part of the dress. Thick cravats keep the neck too warm, particularly in summer, so that they cannot failto produce

duce continual perspiration, glandular swellings, sore throats, and catarrhal affections. Tight neckcloths prevent the reflux of blood from the head, render the child stupid, and subject to giddiness.

It is a general custom, to let the neck and breast, especially of female children, remain bare, in order to accustom them to resist the vicissitudes and inclemencies of the seasons. The intention certainly is good, but this habit is not adapted to the variable climates of England and Germany. Thus, infants are exposed to the danger of frequent colds, coughs, and other pectoral complaints, arising from the sudden change of the weather; the consequences of which are particularly dangerous to the chest, a part so delicate, and abounding with glands. At the same time the whole body is covered with warm clothes, by which the breast is rendered more susceptible of injury. LENTIN, a celebrated German physician, attributes the croup, a very dangerous disease, to this injudicious exposure of the neck and breast. He farther observes, that when children were dressed according to the prevailing fashion, more frequent instances of that malady occurred than among the peasantry, whose children were either clothed according to the ancient custom, in waistcoats buttoned up to the neck, or they made use of a neck-handkerchief.

Another

Another injurious habit, is that of keeping the breast too warm; which increases the susceptibility of that part for external impressions, and debilitates the whole system. Hence bosom-friends, and other covering of the breast, are useless articles for healthy individuals.

When a child has out-grown its jacket, it may, at the end of the first year, or later, be furnished with a long gown with loose sleeves, which may be drawn close behind; but in winter, an under petticoat of flannel may be added.

Previous to the fourth year of their age, a boy should not be suffered to wear any other but the loose dress before mentioned, which will render the use of breeches altogether unnecessary: these are, in many respects, inconvenient and unhealthy; they impede the free motion of the limbs; and thus children acquire a crooked and unsteady gait. Besides these disadvantages, small-clothes are attended with other inconveniencies; as infants under that age are apt to soil them: the impurities, remaining in contact with the skin, render it sore, and by the moisture thus produced, their health is impaired.

Breeches are a principal cause of ruptures, from the violent pressure on the abdomen occasioned by the waistband: this pressure is sensibly felt on the least exertion of the body, as coughing, sneezing, laughing, lifting a weight, stooping, quickly bending one of the knees; or on the expansion

of

of the abdomen produced by flatulence, or an immoderate portion of food. The consequences of such imprudence, are uneasiness and oppression of the chest; and as, by the straightness of the waistband, on stooping or suddenly turning round, the bowels are propelled towards the upper part of the abdomen, they are necessarily displaced to another part of the body, which then shews the rupture. This disease, therefore, takes place, when an intestine is forced from its cavity; the external integuments, by which the protruded intestine is surrounded, then form a tumour, called an encysted hernia. When this happens, the child is generally supposed to have received some injury, or to be unwell; and all attempts made to relieve it by extending or pulling the body, tend only to increase the evil. Even those of my readers, who are not sufficiently acquainted with the structure of the human frame, may easily conceive, that, when the bowels are forcibly propelled towards a particular part of the abdomen, they must necessarily recede, and protrude at another place; and in this manner the common integuments are preternaturally extended. Whenever such a tumour shews itself on the bodies of children, and disappears on placing them upon their backs, but again projects when they resume an erect posture, a physician, without delay, ought to be consulted. But it would be more prudent to avoid the principal cause

cause of this misfortune, by not allowing boys to wear breeches till they are four or five years old: if, however, that pernicious custom cannot be abandoned, the small-clothes should be made wide and loose; and the waistband in particular, ought not to be so broad as to cover the whole belly.

The unnatural fashion of wearing high breeches, is doubtless the principal cause of the numerous ruptures which prevail at the present day; a complaint which was less frequent amongst our forefathers, who did not submit to such destructive habits: this assertion is amply proved by the experience and conclusive observations of Professor SÖMMERING.

The breeches should not be too tightly fastened around the knee; and, for this purpose, strings are far preferable to buckles.

If, however, parents will insist on their children wearing the fashionable high pantaloons, such custom should be complied with only, when they walk abroad, or pay visits, &c.; but, on their return home, this pernicious article of dress should be immediately laid aside.

The large sashes now worn by children, are an useless ornament; for, in such loose garments, they easily get entangled, and are exposed to great danger in falling.

Another garment not less objectionable, is a narrow waistcoat, which is worn together with high

high breeches: thus the pressure on the abdomen, and consequently the disposition for ruptures, is evidently increased.

For girls, also, the infantine dress before described would be far preferable to stays or petticoats, which give their bodies a conical figure, widely different from the graceful form of Nature: petticoats as well as stays are a fruitful source of ruptures; the former greatly impede the free exercise of the limbs, while the length of train on the ground endangers every step, and occasions frequent accidents by falling;' independently of the injury arising from their pressure upon the abdomen. Hence, the short waists lately introduced merit the strongest commendation, as by their use, all pressure upon the abdominal region is entirely avoided. The female dress should consist only of one entire piece: but the generality of women are not armed with sufficient resolution to resist former habits and prejudices: nevertheless, their daughters at least deserve to be treated with more prudence and sympathy; they should be clothed according to the rules of taste and propriety, which are never in opposition to those of health.

Scarcely has a child completed the first year of its age, when its relations present it with half a dozen pair of stockings: these, when worn at so early a period of life, soon become wet; for the child obeys the calls of Nature, without paying the

the least regard to its stockings; whence it is in constant danger of contracting cold. An additional half dozen pair become necessary, to preserve the child perfectly clean throughout the day, for nothing can be more injurious to its health than wet or cold feet.—I am, therefore, of opinion, that it would be better for young children not to wear stockings, because their tender legs, though uncovered, are not easily affected by cold. If this article of dress were altogether abandoned, they would be less subject to colds, coughs, and obstructions of the nostrils. During winter, however, stockings may be more proper, and even necessary, when an infant is taken abroad.

While in the nursery, or even in the garden, hardy boys may occasionally be allowed to go barefoot; for, by this practice, they acquire a firm and safe step.—To dispense with a thing which is not absolutely necessary, may be productive of great advantages. With the same intention children, though several years old, may be suffered, sometimes during summer, to go without shoes or stockings.

Tight shoes deform the feet; they should therefore be wide enough to allow sufficient room for motion, and may be fastened with strings in preference to buckles. The proposal laid before the public, in FAUST's Catechism of Health, that the shoe should be adapted to the form of the foot,

foot, by means of separate lasts, deserves general attention; for the shoes of children seldom fitting close, are easily trodden down at heel, so that the wearer acquires an aukward and unsafe gait. It would be more proper to let young people of both sexes wear a kind of half-boots, which, as they are laced above the ancles, have the advantage of fitting the leg, and at the same time the child is able to walk in them more steadily than in shoes.

General Principles.

1. *The dress of children should be different from that of adults.*—It is disgusting to behold a child disfigured by dress, so as to resemble a monkey rather than a human creature: such a puppet is a severe satire on the inconsistency of the prevailing fashions. Even a single article of dress, such as high caps, or hats, long gowns, &c. which marks the distinction between children and adults, exposes the former to severe animadversion, but the ridicule in this instance attaches to the parents. Let us at least endeavour to follow true taste, and thus gradually approach nearer to the standard of Nature. A suitable dress for young people ought to shew, by the contrast it forms to that of adults, how far the latter have trespassed upon the laws of decorum, and how little attention is generally paid to health and convenience.

There is a more important aim which determines this distinction between the dress adapted to different ages; for children ought not to be treated like adults, and trained up to the habits of people of fashion, at so early a period of life: hence their very garments should restrain them within the limits of childhood, and make them sensible of their infantine state. All extremes ought to be avoided as prejudicial; and it is an unalterable law of Nature, that every age should remain within its proper boundaries.

2. *No difference should be made in the dress of either sex, during the first years of infancy.*—If the dress before alluded to, whether for boys or girls, be proper and judiciously constructed, it ought to be worn indiscriminately by both, till the fourth or fifth year of their age. In such case, there will be no occasion for providing different caps for each sex, nor will it be necessary to encumber little girls with petticoats. I am acquainted with a family in which the boys, till they attain the sixth year of their age, are dressed like girls; because the father had a peculiar dislike to male children.—It farther deserves to be remarked, that by a distinction in dress, the attention of children may be excited to the difference of the sexes; a circumstance which would deprive them, at an early age, of their innocent and happy ignorance.

3. *Let the dress of children be clean and simple.*—It is a melancholy truth, that the germs of pride and

and arrogance are but too early planted in the infant breast, by decorating their clothes with useless finery, so that they may appear better clad than the children of their neighbours. And even though parents are not, in general, so inconsiderate as to praise their little ones on account of their handsome apparel, yet much mischief is, in this respect, to be apprehended from ignorant servants or other persons, who often endeavour to insinuate themselves by such mean artifices into the good graces of young people, and thus also to obtain the favour of those who employ them.

By a profusion of finery, and by lavishing sums of money on fashionable garments, children are induced to place too great a value on many articles which belong to the list of artificial wants. Hence I am inclined to think that a general dress for the rising generation, though uniform only in shape, would in a great measure contribute to excite more accurate ideas of true human dignity; and wealthy parents would nevertheless be at perfect liberty to procure materials of a superior quality.

By adopting a natural and simple dress for children, much useless expence might be saved by families that are not in opulent circumstances, and consequently ought to employ such means, with more propriety, for the intellectual improvement of their offspring. During the first year, the dress before mentioned is attended with very little expence: neither breeches, stockings, laced

stays, fur caps, nor trailing gowns, &c. will be wanted in the subsequent years of infancy, while children are dressed in a more healthy and becoming manner.

This economical plan, however, must not be carried to excess; for instance, they should not be suffered to wear old clothes purchased from Jews, or other strangers; for, unless the person be known who had previously worn such garments, there is considerable danger of contracting the most loathsome and destructive diseases. Nor would it be prudent to allow them to wear the dresses of other children, who have died in consequence of the small-pox, measles, scarlet fever, consumption, and other contagious maladies.

Having stated my ideas on this interesting subject, I beg leave to propose a few hints respecting the general adoption of a uniform dress for children. In every town, however small, there may be found a few families where correct ideas on physical education prevail; these might enter into a friendly compact, according to which they should engage to dress all their children in a simple and appropriate manner. The only distinction necessary, ought to relate to the difference of age; but expensive articles should be generally precluded.—A society instituted for this judicious purpose, would soon acquire stability, and defeat all vulgar prejudices, which the efforts of individuals could not

not resist. Such an association, therefore, would be equally desirable and useful:—it was by similar means, that the expensive custom of wearing mourning dresses was abolished in several cities of Germany. The endeavours of those who first proposed that abolition, have been crowned with success; and I make no doubt, that the introduction of a more healthy and elegant dress for children, would be universally approved of by the more enlightened part of the community.

4. *Children should never be dressed too warm.*—Caps or cloaks lined with fur, bosom friends, thick cravats, &c. ought to be generally abandoned; though attention should be paid to the season, climate, to travelling, long residence in severe cold air, and particularly to the age of children. This limitation, however, applies chiefly to the first and second years of life; for, at a later period, a judicious plan of inuring infants to external impressions will save us the trouble of accommodating their dress with anxiety to the changes of the season, or those of the day; so that there will be but little occasion to make any alterations.

It is one of the most hurtful practices, to accustom human beings, from their infancy, to warm and heavy clothing; by which the body is enfeebled, and the whole skin so completely relaxed, that it is exposed to many dangers in the future stages of life. A person treated in this effeminating manner, is continually subject to

colds, if he should unfortunately neglect to dress according to the slightest change of the weather, as he cannot always remain within the house: he will frequently be attacked with dangerous complaints, while those who are trained up on a more hardy plan, are enabled to endure all the vicissitudes of the seasons, without sustaining the least injury.

CHAP. IV.

OF WALKING, AND EXERCISE IN GENERAL.

EXERCISE is as natural to children as food; and equally necessary to promote their growth and ensure their health. It is impossible to behold, without emotions of pity, those unfortunate objects who are continually kept by their parents and nurses in a sedentary posture. Young people have an instinctive propensity to be active; and if left to their own choice, we shall soon, and with pleasure, observe, how busily they will employ themselves, and how well they understand the manner of using their limbs. By enjoying much exercise, they thrive better, derive more nourishment from their food, and improve in health, chearfulness, and activity. But, by diligent exercise, I do not wish to encourage such violent exertions of the body, as exhaust it by fatigue, and are always detrimental to the constitution. It would be wrong to check this natural disposition in the rising generation; lest, by habituating them to a premature steadiness, and compelling them to sit in one place for hours together, we might render them diseased and miserable. Nor should infants, for any length of time, be confined to their

nursery chairs, from which they cannot arise without exposing their lives to danger.

By long continued sitting, the thighs acquire a crooked form; and this habit is particularly injurious in the evenings, and late at night, as children are apt to fall asleep in a bent and unnatural posture. HUFELAND asserts, in his Treatise on Scrophula, that the children of several families where that practice prevailed, were almost uniformly crooked. Some parents, however, appear to be determined to stupify the heads of their little ones, by suffering them to sit the greater part of the day, either in school or at church, though they should understand nothing of what is transacted in these places: thus it seems that neither learning nor religion, but the acquisition of a sedentary habit, is made the principal object. In this instance, it is certain, that imprudent parents and guardians sacrifice the health and intellect of their children to a mechanical and unnatural steadiness, without considering that a lively and active child is infinitely superior, and in every respect affords a fairer prospect, than those indolent, slow, placid, and artificial machines.

Whoever investigates the nature of children, will easily discover the best method of treating them; as their natural instinct for exercise is a sufficient hint to the rational observer, that a sedentary life, to them, must be extremely irksome and injurious. By acting contrary to the manifest

fest intentions of Nature, we defeat the purpose of rational education, which consists in a complete developement of the mental and physical powers.

Principles.

As it is always useful and desirable to act according to certain established rules, I cannot in too strong terms recommend to mothers, the following maxims, which relate to the exercise of children in general, as well as to a proper method of teaching them to walk.

1. *Children ought to enjoy perfect liberty to move, leap, and take exercise at pleasure:*—their clothes should be so constructed, that they may occasion no impediment; and their parents and guardians should never confine them by way of punishment. There are three things, with respect to which the natural instinct of children points out the most rational manner of treating them; namely, their appetite at meals; their fatigue or weariness previous to sleep; and their inclination for taking exercise. In these points, no restriction ought to be laid on the choice of young people; for the objects here alluded to, are connected with the necessary requisites of Nature, for improving their different faculties.

2. *In taking exercise, children should not rely on the assistance of others, but endeavour to make every possible*

possible use of their own powers.—It is an established fact, that we become acquainted with the extent of our powers, only in proportion as we endeavour to improve them.

Solicitous mothers are generally too anxious, when they see their children ascending stairs, or running down a hill: on such occasions, they suddenly seize the child, and incessantly alarm it by calling out, that it may be on its guard. Thus an infant is intimidated; it scarcely ventures to move from the spot, loses all attention to its unsafe steps, and is in constant danger of falling. Always accustomed to be led, guided or carried, such children with difficulty learn the use of their legs; they are at a loss how to balance themselves on the least accident of slipping, and lay hold of every thing in their way: hence, at this early stage of life, man often accustoms himself to foreign and precarious aid, which is frequently wanting; though he has within himself a never-failing resource of original and permanent powers. Indeed, it may be easily discovered whether children have learned to walk by natural, or artificial means: in the former case, they acquire a firm and safe step, and are able to climb without much danger of falling; in the latter, they totter in a pitiable manner, tremble at every declivity, frequently stumble or fall, and anxiously grasp at the clothes of their nurses. This neglect arises from the unnecessary fear of over-anxious mothers,

thers, who apprehend the worst of consequences, if a child be suffered to walk alone. But, unless it were to take its exercise upon the pavement, there is no danger attending a slight fall, especially on a carpet: it will learn to support itself in proper time with its little arms, or to guard against tumbling on the face; as it is conscious that it cannot rely on the assistance of others, and is consequently obliged to make use of its own powers.

3. *When in the act of falling, children should not be seized by one arm:*—by this improper practice many infants become side-bent, and their arms are likewise in danger of being dislocated. If, therefore, on such an occasion, a child cannot be laid hold of by the waist, it will be less dangerous to suffer it to fall on the floor. There are, however, cases, which form exceptions to this rule.

4. *After a fall, children should not be too much pitied.*—By plaintive words, and expressions of sorrow, we most effectually contribute to render them timid: hence we ought to suppress our feelings on such occasions, and remain perfectly neutral. Although a child may not sustain the least injury, it will doubtless cry, if it be assaulted with verbose commiseration; which not only makes it more susceptible of real affliction, but also creates additional and imaginary sufferings. The justice of this remark is sufficiently demonstrated by experience; for, in their plays and amuse-

amusements, children frequently hurt each other, and even tumble down with violence, without expressing the least concern in consequence of such accidents.

5. *Every kind of spontaneous exercise is preferable to that taken by compulsion.*—When a child moves about in a voluntary manner, its powers are called into action; but, if it be carried about, either in a chaise, or in the nurse's arms, it remains in a passive state. The former is, therefore, doubtless most conducive to health.

6. *Care should be taken, that the child may early exercise, and learn the proper use of, its powers.*—The first spontaneous effort of the physical faculties should by no means be prevented. Hence we ought to reflect on the injuries arising from tightly lacing or swaddling the body of an infant, or even confining it in leading strings.

7. *The developement of infantile powers ought to be promoted in every possible manner, without carrying our endeavours to excess.*—It is an important point to teach children the use of their limbs. It is also worthy of remark, that the greatest pains are generally taken to instruct them in walking, while little attention is paid to the exercise of their hands and arms, which are left almost entirely to themselves: nevertheless, they much sooner, and without any methodical lessons, learn the proper use of the latter, which never impede their progress; while the lower extremities often appear

pear to obstruct their motions. In teaching children to walk, they need only be supported, and not compelled to go alone, by confining them in moveable chairs, or other absurd machines constructed for that purpose, before the legs have acquired sufficient strength to support the body.

8. *Exercise must be uniform, and not partial*; as, on the contrary, by exercising one side or part of the body, and neglecting the other, children may easily become side-bent or crooked; for example, when they are constantly carried in an uniform posture, or led by the same arm: hence they should be alternately conveyed on each arm. A similar effect is produced on the body of an adult, by carrying a burden continually on one side; and if such partial exertions be frequently and long continued, the consequences above-mentioned necessarily follow.

The first attempt at exercising the body of an infant, ought to be made by the gentle motion of the cradle, or that favourite method of rocking it, on the lap of its mother or nurse.

Of Carrying.

A child should not be continually kept in its cradle, but taken out several times in the day, and carried about on a pillow. I request mothers to attend to the following particulars:

young

young children should be carried in a recumbent posture, and without any considerable elevation of the head. When they are tucked in a bed, and thus lifted up in an almost erect situation, the body readily adopts a crooked form; a misfortune which I have frequently observed to happen. The best method of carrying them, would be to lay babes in a little basket; for, while confined in bed, and packed up like a parcel, they are deprived of every degree of motion; but in the manner suggested, they might be only covered with clothes, and thus remain at liberty to expand their limbs, and turn themselves at pleasure.

I farther entreat every mother, by no means to suffer an officious nurse, in the first weeks of infancy, to hold the poor babe in an erect posture. At this tender age, the spine has not sufficient strength to support the body in that situation; hence it is apt to become incurvated, and the child grows crooked.

When little infants are carried abroad, they should be placed in the above-mentioned basket, and not, according to general custom, be tossed about on the bare arms of the nurse. But again I must request the attention of mothers, that they may not on any account suffer their tender offspring to be confined in a jacket stiffened with whalebone, or other elastic materials. Such an encasement, indeed, obliges them to sit upright; but at the same time prevents free muscular motion,

tion, and compresses the body and breast in the most unnatural manner; by which, as I have before explained, ruptures are inevitably occasioned.

To promote the evolution of physical powers, a child should be encouraged to exercise them from the hour of its birth. When it is a week old, it should, on awaking, be taken from its couch, and placed on a soft coverlid, or carpet, where it may move its little arms and legs in every direction. Neither in summer nor winter, need we apprehend the effects of cold in a warm apartment, especially if the child be clothed about the waist with a loose jacket. This early manifestation of vigour and activity, cannot but produce the most agreeable sensations in the minds of parents, while it obviously contributes to the health of their little ones.

Every affectionate mother should attend to the manner of carrying children, as is commonly practised by nurses and servants: they merely seize the infant by the knees, and press its thighs towards their body, so that its back and posterior parts appear, as it were, suspended in the air: thus the child frequently falls backwards, and is recovered only by laying hold of its legs. Nor are nursery-maids accustomed to change the arm on which they carry the infant; though it must be admitted that by such improper practices, the body loses its straight form, the spine becomes bent, and sometimes even particular joints are dislocated.

dislocated. The child also should not be allowed habitually to throw its arms round the neck of the person who carries it. In this situation its shoulder blade, or one side of the chest, is drawn upwards, and the whole body acquires a crooked form.

The following is the best method of carrying children: their back should lean against the breast of the mother or nurse, their arms should remain unconfined, so that the hands may meet at both sides of their thighs; or a child should be so placed upon the lower arm, that it may recline against the arm-pit of the person who carries it, while it is guarded by the upper part of the arm, and thus prevented from slipping.

During the first six months, the head of the infant should, in carrying, be supported by the nurse's hand; for the muscles of the neck are, at this tender age, too delicate to preserve the head in an erect posture. Vain mothers are anxious to see an infant raise its head, when it is scarcely a few weeks old, though they are unconscious of the mischief occasioned by a continuance of this premature experiment, which has an obvious tendency to distort the neck.

The nursery-maid ought to carry the child alternately on each arm; lest the foundation should be laid for a crooked growth, and squinting.

Another very injurious practice, is that of running or jumping with an infant in arms, either from declivities, or down a flight of stairs. The sudden

sudden agitation of the whole frame is too violent for such a delicate creature, and the gust of air thus raised, cannot fail to be detrimental to its tender lungs; especially if it should be in a state of perspiration, or under the influence of cutaneous diseases, such as the small-pox, measles, or scarlet fever. I remember an instance of a child that was nearly killed, in consequence of having been rapidly carried about in the nursery, and rudely shaken on the arms of its attendants during almost a whole night, while it was afflicted with the measles: thus the eruption suddenly disappeared; and the child, after a tedious illness, recovered only with the greatest difficulty.

Violent rocking is attended with injurious effects on the brain and the medullary substance of the spine: hence we may conclude, that it is extremely improper for nurses to leap and jump with children in their arms; nay, even the most tender infant appears to be sensible of the concomitant danger, as it evidently expresses timidity in its countenance; and when nurses take those wanton liberties of running up and down stairs, it trembles and cries on approaching such places.

The degree of care bestowed on the carrying of babes, ought to be in proportion to their tender age. To toss them about swiftly upon the arms, or turn them carelessly in a circular direction, are practices highly detrimental; for the commotions thereby excited in the system, powerfully affect

their delicate organization, and may be productive of spasms, epilepsy, and apoplectic fits. It is equally improper to carry about and agitate children immediately after meals; as vomiting is often the consequence of this mismanagement.

Parents cannot be too much on their guard against the noxious customs and artifices of nurses. Children should be carried, and occasionally tossed up and down on the arms, yet in the most gentle and cautious manner. Such an agitation affords them very agreeable sensations, while it promotes digestion, and preserves their vivacity.

It is an injurious habit, to swing children continually in various directions, or to run with them about the room; as, by this practice, they are not only stupified and rendered dull, but the situation in which they are placed during such excesses, also tends to deform their limbs. When they are suffered to rest for a length of time upon the arm, the necessary consequences are an incurvation of the spine, and a crooked growth of the body, from its inclination to one side. Hence I have frequently remarked, that children, after recovering from tedious diseases, during which they were carried about for several weeks together, were apt to acquire a deformed shape. In short, if they are once accustomed to such indulgence, they expect to remain constantly on the arm, to the great inconvenience of their mothers or attendants;

ants; nor will they sleep unless they have been previously carried about for an hour in the room; and when indisposed, they will, in this respect, be still more troublesome, and require to be continually removed from the bed, in order to appease their spoiled and fretful temper.

No weakly or too young nursery-maid should be intrusted with infants, lest the health of both might be injured: such a person is incapable of supporting the child in a proper situation upon her arm; it consequently inclines to one side, while a part of its body preponderates forwards. And if, on the other hand, the babe is of a lively and active turn, there is no small danger of its eluding the attention, and slipping from the hold of the person who carries it.

Of Riding in Carriages.

The gentle and uniform motion which children experience, when drawn in a little chaise, is doubtless preferable to the exercise they derive from being continually carried in the arms; as the former method produces a pleasant and salutary stimulus to the body. But I advise every attentive mother to pay scrupulous attention to the following observations, which relate to the practice above mentioned, as well as to that of making infants the companions of our journies.

1. The motion of carriages should not be too swift, nor uneasy. Babes only a few weeks or months of age, might with more propriety be carried in a little basket. Riding, particularly through paved streets, is attended with too violent a concussion of the delicate frame of an infant, though the carriage be ever so convenient. Servants therefore should not be suffered wantonly to run down hills and declivities with those little chaises. Every reflecting person must be convinced, that even excessive rocking is highly improper and hurtful to a tender body: no doubt can therefore be entertained as to the mischievous tendency of the practice here alluded to.

2. Infants must not be permitted to sit, but lie extended, in their carriages; for long continued sitting in an erect posture, together with the motion of the vehicle, conspire to produce incurvation of the spine, and deformity of the body: besides, they are apt to fall asleep in such a contracted and hurtful posture.

3. When children are thus taken abroad, they should not be covered with a quantity of clothes, especially in summer, which causes profuse perspiration. The little carriage should be provided with a top, which may be fixed at pleasure, without excluding the free access of air. This covering is indispensably requisite to guard

infants

infants against the too great heat of summer, as well as too strong a light and wind.

4. Such a vehicle ought to have small wheels, and not be suspended too high; the seat must be deep enough to prevent the child from falling out, if the carriage should be overturned: and to avert dangerous accidents of this description, a leather strap may be fastened across.

Of Walking.

Every kind of spontaneous exercise is preferable to that artificially enforced. We should therefore afford children early opportunities of using their legs. But a question here arises, how do they in general learn to walk? Certainly in a very absurd manner, and with danger to their health and straight growth. Many a well-meaning mother enjoys the short but illusive pleasure of seeing her child stand on its legs, at a very early age; without considering whether these limbs have acquired sufficient strength and firmness to support the body; and many nurses prematurely induce infants to walk, that they may indulge their own idle disposition, or pursue their ordinary business; while they expose their charge to all the effects of such mismanagement. Sometimes, also, vain mothers endeavour to excel their neighbours in teaching children the use of their legs, but this artificial effort may with more pro-

priety be termed waddling than walking; it is a wretched way of tottering about, and stumbling, which cannot but offend the eye of every judicious spectator.

Children are often, in a manner, suspended by what are called leading-strings, which are fastened to their jackets or corsets at the shoulders. These have the appearance of an harness contrived for the taming of a wild animal, rather than for leading a tender and sprightly infant. Whoever has once observed the wanton manner in which nurses pull and toss about those ill-fated children used to leading-strings, must be convinced of the injurious tendency of such practices; especially, when in danger of falling, they are raised by them, as a horse is checked by his bridle, so that they are often subject to dislocations. Besides, they thus rely upon extraneous assistance, and do not exert their own powers.—Leading-strings farther compress the shoulders, and impede the circulation of the blood in those parts; and, while the child reclines forward with the whole weight of its body, it habitually acquires an improper and disagreeable posture.

Not less objectionable are the moveable machines, vulgarly called go-carts. When infants remain for a length of time in such a constrained situation, the weight of the body bends the feeble legs, which ultimately become crooked. The breast also suffers, by leaning upon the circular top, and pushing the machine.

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To teach children to walk, by holding one of their hands, tends to produce a deformity of that side by which they are led; or at least they are apt to become round-shouldered. Even though they be conducted by both hands, between two persons, we may apprehend similar consequences; as the body of the child still preponderates to one side or the other.

Those mothers who possess true affection for their little ones, should not be too anxious to teach them the use of their legs. It is indeed far more prudent to delay these exercises for a few weeks, or months, than by too premature an exertion of their strength to expose infants to the misfortune of bandy-legs, a crooked spine, and round shoulders. In my own neighbourhood, I have reluctantly noticed numbers of bandy-legged children, because walking is here generally attempted by artificial means; and go-carts, as well as leading-strings, are much in vogue.—May these instruments of torture soon be abolished, and mankind trust to Nature alone, whose parental wisdom forms no caricatures.

To compel children to exert themselves to walk, during the period of dentition, is highly detrimental. At this time, they are in an extremely debilitated state, and their limbs are in danger of growing deformed, or being dislocated. Hence I solicit mothers to pay particular regard to them at this critical change.

Before infants attempt to walk alone, they should first learn to crawl: by feeling the want of their legs, they will gradually try to use them. With this intention they might be placed on a large carpet, and surrounded with toys: here they will busily employ themselves, move and extend their limbs, or roll about to reach their playthings. If the weather be serene, and the ground perfectly dry, they may be carried out, and placed on a grass-plat, where they can range about in all directions, rest against trees, or gather flowers; and, if they happen to fall, they will not receive much injury on the soft ground, but rather learn to be more cautious in future. While in the nursery, they may be taught to rise from the floor, by laying hold of chairs; and, if occasionally supported under the arms, they will easily learn to stand erect; but they should never be raised up by one arm only. At an early age, however, they may be held under both arms; the hands of the attendant may be gradually withdrawn, and they will soon learn to stand alone; but the child should not be entirely quitted, as it might be in danger of falling. Mild and persuasive language ought to be employed in these experiments; while an infant may be encouraged by a piece of sweetmeat, or some toys placed at a little distance, which will induce it to stretch out its little arms, and endeavour to advance towards the place containing the desirable objects: by such means it may

may be allured to visit different parts of the room. The first journey of this description ought to be attempted only from one chair to another, and afterwards the little traveller may run towards its mother, who stoops to receive it with extended arms. As the child redoubles its efforts to walk alone, the chairs may be placed at a greater distance from each other; and when it sees its taller companions run and jump about, it can scarcely be restrained, so anxious is it to be placed on the floor, that it may crawl or waddle after them; because example is a great source of encouragement. At length, parents are gratified with one of the most delightful scenes; they behold their child for the first time walking without any assistance—the effect of a judicious method pursued in this apparently trifling, yet important branch of physical treatment. I also have enjoyed this inexpressible pleasure; for, after an absence of a few days from my house, I had, on returning, the satisfaction to see my little boy unexpectedly walk alone, and advance towards me; though, before my departure, he was obliged to crawl. This was a truly paternal enjoyment.

If we are earnestly desirous of training up our children in such a manner that they may acquire a firm step, no other but the gradual and cautious manner before described, must be strictly pursued: and with increasing age and strength, their gait will be successively improved.

CHAP. V.

OF AIR.

THERE are, perhaps, few persons who are sufficiently attentive to the beneficial consequences resulting from the enjoyment of fresh air. Pure air is the balsam of life, and in every respect equally necessary as food and drink. Surrounded by a corrupted atmosphere, plants droop and die, while man becomes subject to disease and pain; but that which is salubrious and unconfined, strengthens and invigorates the human body, more than any other means. Persons who have been remarkable for health and longevity, have uniformly spent the greatest part of their lives in the open air. Even the power of vision may be improved or impaired, according to the more or less extensive prospect we enjoy around our habitations. Many persons who live in the narrow lanes and streets of towns, are afflicted with weak eyes: the cause of such complaints must be attributed to the want of a pure atmosphere, as well as to the confined circle of vision; for, as the rays of light are reflected from smooth and dazzling walls, they cannot fail to injure the organs

organs of sight; which, on the contrary, derive great benefit from a pure and bracing air. To the inestimable blessings connected with my situation, I may fairly add another, namely, that from the earliest period of my life, I do not remember to have ever been afflicted with the least affection of the eyes; though I am frequently obliged to write for a considerable time by candle-light. But for this, as well as for the good state of my health in general, I am indebted to the regular habit of enjoying every day the fresh air, beyond the confines of the town. The hours thus employed are amply repaid by superior advantages.

We cannot bestow greater benefits on our children, than by exposing them frequently and daily to the enlivening influence of fresh air: health and sprightliness will be the immediate effects of so rational a practice. The truth of this assertion is universally confirmed by the chearful and active youth of the country, who, from morning till night, inspire the purest air under the canopy of heaven. Here they find the best preservative against debility and disease, which necessarily fall to the share of those wretched beings, who are almost constantly reared and pampered in a nursery. Pale countenances, weak eyes, general relaxation of the body, want of infantine vivacity and activity, an accumulation of all the inconveniencies and sufferings of childhood,

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at length consumption, and an early dissolution of life—all these are the natural consequences of such confinement. On the contrary, there is no method by which children may be more effectually preserved against such calamitous events, than by the constant inhalation of an uncontaminated air. Those who are trained up according to the dictates of Nature, are exempt from many dangerous diseases, and less severely attacked by the complaints incident to infantine life. The rickets, scrophula, tabes dorsalis, or that dreadful consumption of the back, wasting of the muscles of the face, loss of flesh from the arms and loins, difficulty of breathing, as well as general emaciation, which are the symptoms of gradual dissolution—may all be avoided by an habitual and daily exposure to pure air.

The thrush, small-pox, and other maladies, are doubtless more easily overcome by children accustomed to a free and salubrious atmosphere, than by those who are much confined within the house.

Pure air is the best medicine for valetudinary and emaciated infants; by this animating remedy they soon recover their blooming colour. In many infantine diseases, all the skill and judgment of the Faculty may be exerted without success, if that most invaluable medicine, fresh air, be neglected. Catarrhs, which often terminate in pulmonary consumption, and the most obstinate rheu-

rheumatisms, may be removed by taking frequent exercise in a renovating atmosphere. Children habitually confined in the mephitic vapours of a nursery, cannot be easily relieved from these complaints; because it is erroneously conceived that they must be kept warm; and as this plan is unreasonably pursued, the body is progressively more debilitated, and those diseases are rooted into the system. Such unfortunate beings become afflicted with a variety of cutaneous eruptions, as well as with scald heads and the itch; disorders that will seldom yield to medical treatment, while the little patients remain in the nursery; as, on the contrary, those hardy boys and girls who run about with uncovered heads in the open air, if they be kept clean, are seldom or ever subject to those troublesome affections.

The education of children in the country possesses many advantages over that in towns, because the pure air of the former is inhaled, as it were, from the bosom of Nature. In cities of a small extent, however, they should at least be taken to a garden, or a field near the town; for as far as the atmosphere of such places extends, especially if they be filled with manufactories and workshops, the air is impregnated with corrupted particles. In large towns, young people should be sent to open and green fields planted with trees, in their vicinity; such as the Zwinger, in Dresden, or the different parks and squares of London. It

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were much to be wished, that within the boundaries of all large cities, or in the neighbourhood of those which are of a middle size, public places were devoted to the exercise and recreation of children; where they might enjoy fresh air in its greatest purity, and divert themselves by running about and playing upon the grass. The health of youth is an important concern to every patriot and magistrate, who is desirous of training up healthy members of society.

Infants cannot be too early accustomed to the open air. As soon as they are a fortnight old, they should, in fine weather, be taken abroad in a basket. In the midst of summer, they may be carried out a few days after their birth; but in spring and autumn, at a period somewhat later, according to the temperature of the air. In winter, they should be at least a fortnight old, before they are exposed to the external atmosphere, and even then, the finest weather about noon should be chosen for that purpose. When it is mild, the windows may be frequently opened about midday, to purify the air of the nursery; with this precaution, however, that the infant be guarded against the current. The room should likewise be kept thoroughly clean, and daily aired: on this occasion, I shall refer the reader to the first Chapter, "On the proper establishment of a Nursery."

Children ought to be but gradually habituated to the fresh air, accordingly as they are more or less vigorous:

vigorous: those of a weakly constitution, should in this respect be very attentively managed, and the time of their remaining out of doors, be prolonged only by imperceptible degrees.

Before we attempt to make infants the companions of our journies, they should be at least one year, or rather two years old; short excursions of a day or two will not, however, be detrimental. The sudden transitions of weather and climate; the numerous inconveniencies and difficulties that occur in travelling; the incessant agitation occasioned by the motion of the carriage; the danger of infection in places where epidemics prevail;—all these circumstances ought to be duly considered. Yet I am far from wishing to suggest, that any of these motives should induce parents to deprive their little ones of the daily benefit of fresh air, provided that the conditions above detailed be properly attended to.

There is but little danger in exposing those children, who have on the whole been judiciously treated, to the beneficial influence of the atmosphere, at an early period; while others, nustled up in heated apartments and warmed featherbeds, must be managed with additional precaution. If they are very delicate, either naturally, or from debilitating habits, they should at first be carried out only in temperate and dry weather, and furnished with warm clothes. Indeed, the whole treatment of infancy, as pointed out in this work,

work, is so intimately connected, that those who propose to adopt only part of the rational and hardening method here suggested, without scrupulously adhering to it in every respect, will derive no advantage, but rather do mischief, by their unsettled plan.

Pure air is the natural element of children. After having but a few times been carried out of the house, at a very early age, they evince a strong desire to return to the open air. While yet on the arms of the nurse, they anxiously point at the door, and make efforts to open it. When they can scarcely crawl, they instinctively advance towards that part of the room from which they have a prospect of escaping. Hence, in the bosom of expanded Nature, they experience the greatest comfort; and their tears can frequently be stopped in no other manner than by taking them abroad. This natural propensity should therefore be liberally indulged.

As soon as young people are able to walk, they should have perfect liberty to enjoy the air at all seasons of the year, agreeable to their own inclination, and without compelling them to go abroad; we should afford them an opportunity of frequently meeting their play-fellows, either in a garden, an adjoining field, or upon a grass-plat: thus they will neither be affected by heat or cold, and scarcely feel the inclemency of the elements.

Boys

Boys may be permitted to run about without hats, though exposed to the wind and sun. If they do not spontaneously complain of heat or cold, it may be considered as a proof that they are in good health; for diseased and debilitated children will speedily return to the nursery. According to their natural sensations, therefore, we should regulate whatever relates to their health. Hence the superior advantages of a country residence, where infants of the most tender age may be daily, and without trouble, conveyed into a pure air, while we may observe through a window, whether the atmosphere be congenial to their feelings. If they cry, and cannot bear the blast of a moderate wind, or a slight degree of cold, it is then proper to return with them to the house, as they are probably indisposed; but if, on the contrary, we find them lively and chearful, they may be allowed to continue in the air, as long as they are comfortable and easy.

Young people should be early accustomed to take excursions. After the fourth year of their age, they may be frequently permitted to accompany their parents or attendants on short journies: it will not be difficult to habituate them gradually to a walk of two or three miles, without resting. But care should be taken, that they may not be too much fatigued; for, in such case, they ought to be relieved, either by being alternately carried, or by making short stages.

While attending to our sons, however, let us not neglect our daughters. During the first years of infancy, as has already been observed, the education of both sexes should in every respect be uniform. Girls, as well as boys, ought to be frequently exposed to the open air, especially after they are two years of age, without paying particular regard to every change of the seasons. But, in this respect also, no constraint must be used; for instance, children should not be forced, against their inclination, to go out of doors during a fall of snow, or the intense heat of a summer's day;—if they be once inured to a rough atmosphere, no compulsion will be necessary. A white and smooth skin is much too dear a purchase at the expence of health; besides, it is in many situations more detrimental, than conducive, to the prosperity of forlorn girls.

It is not, however, the hot or cold air alone which injures the skin; but the effects of a sudden change of temperature are severely felt by those who are not accustomed to them. Our health will be benefited exactly in proportion as we boldly and constantly encounter all the vicissitudes of the seasons. The complexion of children is impaired, when they are but seldom exposed to fresh air, as the alternations of heat and cold easily chap a skin already relaxed by the impure atmosphere of the nursery; but those who daily profit by the advantages above alluded to;

to, will preserve their agreeable and blooming appearance, which is the true mirror of health.—Among the peasantry, we frequently meet with girls who have a perfectly white skin, though they are at all times exposed to the effects of air and weather.

I cannot too often repeat the maxim, that no day should be suffered to pass, without affording children the benefit of exercise in the open air. In this instance, custom ought to become second nature; they must be inured to external impressions; and the daily enjoyment of this balm of life should constitute an essential part of their regimen.

But parents cannot be too circumspect in attending to their little ones, when they are hot, and in a state of perspiration; that they may not sit or lie down on the cold ground, on stone steps, or even in the shade; and above all, that they may not be supplied with cold beverage. This species of neglect, or imprudence, is the cause of many dangerous diseases, and likewise of the early death of numerous individuals, whose lives are thus annually sacrificed, especially in country places. Parents, guardians, nurses, and servants, as well as all persons to whose care young people are intrusted, ought therefore to be properly informed of such mischievous consequences. Nay, as soon as infants are able to comprehend, they ought, by a recital of melancholy examples, to

be warned of the dangers attending this practice. Custom in this instance, will have a good effect; especially if, from an early period of life, no drink has ever been allowed to them while their bodies were in a state of perspiration; if they have not been permitted to retire to shady places; and if the causes of the fatal events before alluded to have been distinctly explained.

CHAP. VI.

OF CLEANLINESS.

IN commending this domestic virtue, no writer can be too prolix; and though I wish not to offend mothers, by expatiating on its beneficial tendency, I shall nevertheless request them to pay scrupulous attention to the conduct of nurses and servants, and not suffer an uncleanly woman to attend their little ones; for, if those persons themselves are not remarkable for cleanliness, how can it be expected that they should make a favourable exception with regard to an infant committed to their management? This is an additional motive which should induce parents to superintend, if possible, the physical treatment of their offspring, during at least the earlier part of life; as but little dependance can be placed on hirelings. The health and vivacity of children may be much promoted, by paying due attention to this point; an observation which is daily confirmed and exemplified in the management of the lower animals. But, alas! we frequently bestow greater care on these creatures, than on our progeny;

because the former belong to the productive class which provides us with nutriment, while the latter are numbered among the consumers. The origin of the most fatal diseases incident to childhood, may be traced to a want of cleanliness, and consequently be avoided by taking proper care in this respect, particularly of the skin. Whoever inspects those nurseries which are intrusted to the care of slovenly women, will not be at all surprized that the young family are afflicted with various kinds of eruptions; that they have wan and tumefied faces; and that they are scarcely ever free from complaints. But how, it may be asked, is it possible that they can be healthy, when surrounded by unwholesome vapours, forming an atmosphere which is so saturated with humid and injurious particles, that they respire their own exhalations? They are not accustomed either to be washed or bathed, sometimes for weeks together: and the nurse, while employed in other occupations, forgets to keep the child dry, to change its linen, or to air its bed. Thus the poor infants become subject to a sore and inflamed skin; they are troubled with worms, weak eyes, and a scald head, as well as with the itch, and other fulsome maladies. Among various bad habits of nurses, which have partly been before enumerated, I shall in this place point out, by way of recapitulation, the disgusting sucking-bag, the chewing of victuals, and the neglect of cleaning

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the vessels in which food is usually prepared. In the last instance, the want of attention is sometimes the cause of poisoning a child, when its pap is kept and warmed up in leaden or earthen vessels badly glazed, where it has either turned sour, or been contaminated by the deleterious particles introduced by envenomed flies.

An unclean person is not deserving of our confidence; for sordidness is generally associated with carelessness and an idle life. A dirty nurse will treat the child on many occasions with indifference, because she is averse to every kind of trouble it occasions.

Uncleanliness renders the body susceptible of infection, while the contrary practice affords security against the most virulent diseases; nay, it is proved by experience, that by a strict and constant regard to cleanly habits, many have preserved themselves from the contagion of the plague. By neglecting the necessary care in this respect, persons are often exposed to imminent danger. Most cutaneous diseases are propagated merely from want of attention to this point, because they are communicated by clothes, linen, beds, and other articles, from one individual to another. Children should not be permitted to wear either second-hand clothes or linen, and especially old shirts or stockings, unless they are obtained from those persons, of whose health and circumstances we possess a satisfactory knowledge. I knew a

charming boy who was in great danger of losing his life, in consequence of a scarlet fever which he had contracted by wearing the boots of a patient labouring under that disease. Nor is the fumigation of linen, beds, or clothes, together with repeated and careful washing of such effects, a sufficient security against their contagious nature.

It is, farther, a pernicious custom to suffer children to be indiscriminately embraced and kissed by relations and strangers; for, by this ceremony, they may be easily infected with the most virulent disorders. And though no particular malady should be introduced by such contact, it is to be feared that the humours of the child may be contaminated by absorbing the poisonous saliva of an infected adult. Hence the incessant slavering and impassioned kissing of infants, which we daily see practised by nurses, is certainly improper, and should not be tolerated by parents.

From the moment of their birth, children should be continually kept clean: they require to be frequently dried; and, if the circumstances of parents will allow it, their linen ought to be changed every day. To prevent them from soiling the bed, a piece of flannel is usually placed beneath them, and this again covered with a linen cloth, in order to defend the skin against the friction of animal wool. But, notwithstanding

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these precautions, they must frequently be wiped dry, and several pieces of flannel kept in readiness for a change: these should be carefully washed, which is the best preservative against a sore skin, and the injuries arising from the re-absorption of mephitic vapours. The beds should be aired and beaten every four or six weeks in winter, but in summer, every three weeks.

By keeping children uniformly in a clean state, they will imperceptibly acquire an instinctive habit of cleanliness, so that they will not suffer any thing filthy about their persons. Thus the most tender infants will give notice by their cries, when they are in want of dry clothes. Such is the effect of custom and proper management, that they may even be taught to express, at a very early period of infancy, all their desires and necessities, especially those which relate to their evacuations. But in the beginning, it will be requisite to place them every time on the chair, when they appear to want it; and, after a few months, they will instinctively point out their inclination to that effect. No good-natured parents or nurses can be displeased at this necessary trouble; sometimes, indeed, the example of older children may be the most easy method of initiating the younger in this desirable practice. With this intention, the former may be regularly put on the night-chair at a certain hour of the day; for instance, in the morning, when Nature

ture is most inclined to discharge excrementitious matter from the body: the latter will spontaneously endeavour to imitate their play-fellows, and there is no doubt of succeeding in the attempt, after persevering in it, without intermission, for about a fortnight.

Sometimes children are troubled with an incontinency of urine; a disease often originating in uncleanliness. Dirty swaddling-clothes or beds stimulate them frequently to make water; hence arises a local debility, so that they at length are unable to controul this discharge. The most efficacious domestic remedies for removing this complaint are, cleanliness, a hardy system of education, a couch of horse-hair, cool apartments, residence in the fresh air, daily washing of the whole body, particularly the private parts, with cool or cold water, according to circumstances, and pure water for their only drink, instead of debilitating tea or heating beer. Such little patients, when they increase in age, ought to be awaked several times during the night, for the purpose of making water. But, if these means do not procure relief, it will be necessary to apply for medical advice.

There is another prejudice which deserves to be exploded: many parents, who in general keep their children tolerably clean, suffer them almost to perish with filth, when they are afflicted with disease, without being able to assign any particular

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lar reason for this misconduct. I once could not refrain from censuring such neglect in a mother of the lower class of people, among whom this prejudice is most prevalent: she gravely replied, that it was improper to change the linen of sick children, because one of her neighbours had lately lost a child, in consequence of such a practice. No sensible person, however, can doubt the injurious tendency of that disgusting custom, by which infants are obliged to respire their own impurities; the linen is clogged and stiffened with perspirable matter, the skin injured, perspiration checked, and all diseases arising from a vitiated and decomposed state of the fluids, such as the small-pox, the dangerous scarlet and petechial fevers, are uncommonly aggravated, so that ignorant people frequently contribute to their fatal termination.

Of Bathing and Washing.

It were devoutly to be wished, that all mothers could be convinced of the benefits conferred on children by bathing them! During the earliest period of infancy, this ought to be considered as one of the sacred maternal duties, the performance of which should on no account be neglected a single day. The bath may be justly termed a true preservative of human nature, the grand arcanum of supporting health, and attaining a long life:

life: its advantages are so manifold and extensive, that it constitutes one of the indispensable requisites to the comforts and welfare of man. No other expedient tends in a greater degree to strengthen the constitution, to suppress the susceptibility of infection, and to prevent diseases. Bathing is one of the most effectual means of purifying the skin; of restoring free perspiration, and of preserving the surface of the body from eruptions, and other troublesome disorders; while it enables the organs of perspiration to discharge impurities, and thus excellently promotes critical evacuations.

Children accustomed to the bath, will more easily overcome the diseases incident to infancy, particularly the measles and small-pox. Bathing also cannot be too strongly recommended as a cosmetic; it imparts to the skin a greater degree of softness and elasticity, than can be attained by the most expensive artificial preparations *. That lively

* The celebrated Prof. PALLAS mentions, in his Travels through the Southern Provinces of Russia, lately published in Germany (vol. i. p. 232), that a Mr. ZETTLER, an apothecary at Astrakhan, prepared, at his request, an admirable and harmless cosmetic of the flowers of the *Nymphæa Nelumbo*, or, as it is called by the Indians, *Lilifar*; which grows in great abundance in the inlets of the river Volga, and the fruit or nuts of which are searched for, and eaten with avidity by the natives, who regard them as sacred. "These flowers," says PALLAS, "have a very agreeable flavour: the

lively complexion, which is the true mirror of health, is a precious gift of Nature, and cannot be supplied by paint, or all the perfumes of the East. Indeed, the origin of most of the complaints peculiar to the present age, may be attributed principally to a neglect of the skin, on which our ancestors bestowed the greatest attention. Hence those public institutions of the ancients, for the purpose of bathing, and particularly river-baths, deserve to be generally restored, for the benefit of the present as well as future generations. The excessive emaciation which is now so universally complained of; nervous debility; disinclination to employment; the violent attacks of the gout, rheumatism, and catarrhs; the frequent glandular obstructions; and that diseased irritability, so common among certain classes of the community;—all these are evils of modern times, and were scarcely known by name to our forefathers. To remove and prevent such dreadful maladies, as well as to train up more healthy

the water distilled from them has the fragrant and permanent taste of genuine ambra; and, used as a lotion, it imparts such softness and delicacy to the skin of the face and hands, that it deserves to be introduced as an innocent cosmetic into all the apothecaries' shops."—Although I do not approve of the learned Professor's advice to introduce a general cosmetic, yet I think proper to inform the reader of a discovery which, if applied to practice, might perhaps tend to banish from the toilette of our fashionable ladies, the destructive compositions of lead, mercury, and other virulent metals.—*Transl.*

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members of society, it would be previously necessary to re-establish domestic baths, and to introduce them into general practice. Every proposal, therefore, which tends to contribute to that salutary end, ought to be received with gratitude, and duly supported.

In order to restore mankind to the healthful state and physical excellence of the ancients, we ought to resort to the bath from the earliest period of infancy. The truth of this assertion is self-evident; for bathing is a sovereign means of supporting the bodily powers in due equilibrium; by it, an excessive degree of irritability, as well as too great an imbecility of infants, are happily regulated, so that no one power will be preternaturally exerted, or retarded, to the detriment of another; dentition will take place at a proper period; and children will learn to walk in due time, when their legs have acquired sufficient strength and stability.

From the birth of a child to the second year of its age, the *tepid* bath only ought to be employed; and after that period, the *cool* bath: the bodily constitution of infants requires this gradual change of temperature. During the first year of life, they are evidently in want of a moderate degree of warmth, nearly resembling that to which they were accustomed in the maternal uterus. New-born babes, or even those under a twelve-month old, cannot endure a very cold air, and

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ought therefore to be treated with additional precaution in bathing.

But I must not on this occasion omit to warn my readers against mistaking warmth for heat; terms which are often confounded by those, who conceive they cannot keep children sufficiently warm, or rear them too hot, and consequently place them in warm beds, heat their apartments, and habituate them to hot food.

The degrees of temperature in which we train up young people, should be regulated according to their respective vital energy. Emaciated children are strengthened and animated by a moderate degree of warmth; which, at a tender age, is a true restorative and preventive remedy.—But, in this assertion, I beg not to be misunderstood; for it is only a mild and temperate warmth which should be here adopted.

The lukewarm bath is most suitable to the first stage of infancy. Although the ancient Germans, as well as the modern Russians, plunge their children in the waters of frozen rivers, yet this trial of vital strength, which costs the lives of numerous innocents, is too severe for our tender progeny; nor is it conducive to the purpose we wish to attain. The sudden effect of cold is too violent a stimulus for the frame of a tender infant, in whose mind it perhaps produces all the terrors of instant death.

Daily

Daily bathing in cold water, is certainly not the proper means of strengthening infants, or improving their health. The contracting power of cold produces rigidity of the fibres, obstructs the capillary vessels of the surface, and renders the whole skin too parched and dry for so tender an age. Hence, in cold weather, the skin of children thus treated becomes so stiff and unpliant, that it chaps in every direction, and we are obliged to make use of oily substances, in order to heal and soften it. Cold bathing, so generally practised by the English, has lately been introduced into Germany; but that nation, after having by experience ascertained its injurious effects, has now in a great measure relinquished this practice. Many writers on this subject, however, still continue to recommend the use of the ice-cold bath; because they are unacquainted with the constitution of the human body. Dr. WURZER* informs us, that he knew a literary English gentleman, whose son, then six years of age, had from the time of his birth, been daily accustomed to the cold bath: the boy was indeed strong and healthy, but his skin was parched and rough. At length, he caught the natural small-pox: the

* In his "*Versuch über die physische Erziehung der Kinder*;" or, a Treatise on the Physical Education of Children; which, I do not hesitate to say, equally abounds in practical and paradoxical maxims.—*Transl.*

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eruption was dreadful, and attended with violent convulsions; the pustules appeared in different parts of the body, and were succeeded by fever, restlessness, and delirium.

During the first three months of its life, an infant ought to be daily bathed in moderately warm water; in the next nine months, the water should be only lukewarm; after the first year its temperature may be still more reduced; and after the second, the bath should be cool.

From the third year of its age, we may venture to bathe a child in cold water; but it should always be remembered, that I do not mean, as cold as ice. I therefore entreat my readers to make a proper distinction between *moderately warm, lukewarm, warm, tepid, cool, and cold.*—The term moderately warm, implies that degree of heat, when the hand, or, if this be not sufficiently sensible, the foot, may remain in it for some time, without experiencing the least disagreeable sensation: the lukewarm bath is about the same temperature as new milk. The cool bath signifies a temperature equal to that of water which has been kept in a room for a considerable time, so that its chilness is taken off; and the cold bath ought to correspond with river water, in the height of summer*.

To

* As the Author does not, in my opinion, satisfactorily explain the different degrees of temperature, I shall endeavour to supply this deficiency.—Immediately after the birth of a

To determine with critical accuracy the most proper degree of warmth, or cold, in the use of the bath, we should consult the respective powers of life, namely, the various degrees of vigour or debility observable in infants.

If children are weakly or diseased, and at intervals possess less activity and sprightliness than they display in general, the temperature of the bath should be regulated according to such changes; for those who, when in perfect health, could sustain the effects of cool water, must, in the contrary state, be exposed only to the warm bath. Attention should be paid to this circumstance, more especially during the period of evolution*, when cool bathing does not agree with the unfolding constitutional powers. It appears to me of great importance to point out, on every occasion, the necessary deviations from general rules; a method by which I hope to render this work still more useful to those mothers who may favour it with their perusal.

child, the water in which it is bathed, ought never to exceed the 98th degree of FAHRENHEIT's thermometer: by progressively reducing the warmth of the bath one degree every month, it will stand at 86°. when the child is one year old; which, I presume, will produce the sensation of what Dr. STRUVE calls *luke-warm*:—if this temperature be still farther reduced in the next twelve months, so that the mercury in the glass falls to 74°. when the child has completed the second year of its life, it may then with propriety be termed a *cool bath*.—*Transl.*

* See the Appendix, "On the period of Evolution."

In

In the first period of life, children require a moderate degree of warmth; but in proportion as their fibres attain more firmness and strength, they are better enabled to support violent impressions.

The inuring of the body to hardships, ought to keep equal pace with the progress of Nature; for every precipitate or premature attempt at developing her powers, is not less injurious, than the contrary plan of procrastinating her operations. A cold regimen should never be employed, when the constitution of the infant, on account of the weakness and tenderness of its fibres, requires a moderately warm treatment. The application of cold to a body comparatively robust, is bracing and beneficial; but on another which is much reduced in strength, its contracting power diminishes the susceptibility of external impressions, and produces indurations of the glands, and stagnations in the capillary vessels; or its violent stimulus is attended with preternatural tension, which is inevitably succeeded by increased debility.

Agreeably to the result of these observations, which are derived, as it were, from the tablets of Nature, we may regulate not only the particular temperature of the bath, but likewise the whole management of children. As soon as their constitution has acquired more energy, the lukewarm bath may be gradually reduced to a less tepid, and at length to a cool, temperature.

After an infant has survived the first year of its life, it should still be bathed twice or three times every week: thus, if it enjoys a good state of health, it will not fail to manifest its satisfaction and agreeable sensations; nay, it will appear as happy in the bath, as the finny tribe in their natural element.

By the process of boiling, water is deprived of its most salutary aërial ingredients. I would therefore advise the bath to be prepared of equal parts of boiled and fresh water; whether it be obtained by rain or from rivers; the latter of which, however, is, for this purpose, preferable to well-water. In order to adapt the bath to the progressive reduction of temperature, the proportion of hot water should be gradually diminished, till that of the cold predominates; and in this imperceptible manner it may be regulated, till it perfectly corresponds with the periodical changes above explained, and which should be accommodated to the age of the child. Yet too anxious or minute attention is, in this respect, by no means necessary.

In summer, the water to be used for bathing may for some time be exposed to the rays of the sun, by whose beneficent influence it will acquire an additional degree of animating virtue: and accordingly, as it is thus more or less warmed, it will contribute to the prosperity of those who bathe in it. Although some boiling water should be added to that which is already tempered by the absorp-

absorption of the solar heat, in order to qualify it for weakly infants, yet children two years old, or even those under that age, may well dispense with that admixture, especially in the height of summer; because no art can render such water more congenial or salutary to the human body*.

* After the eighth year of their age, boys as well as girls, (for why should we neglect the health of the latter?) ought to bathe in rivers, under the guidance and in company with adults; a proper distinction being observed with regard to the sexes:—this, however, should only be practised in the warm days of summer, and at no time when the water is very cold; because it then, like cold in general, is attended with injurious effects upon the body of a person who is in a growing state. Thus they would gradually become expert in the useful art of swimming; which affords not only the most agreeable and healthful exercise, but may likewise present opportunities of saving our own lives, as well as those of others, on trying occasions. This excellent art may be most easily acquired by bathing in rivers; and it would be better to use no artificial means for this purpose, such as bladders filled with air, or other light bodies, in order to support the pupil on the water. By such aid, young people will depend upon extraneous assistance, and neglect to exert their own powers; a circumstance equally detrimental to the acquisition of swimming, as leading-strings are in learning to walk: both of which may be productive of disagreeable accidents. Children of the age above specified, should, therefore, be conducted to a clear brook or rivulet, where the water is so shallow that the bed of the current may be touched by the hand, without immersing the face; and the first attempt at swimming may be safely made in such a situation. There is no danger of drowning to be apprehended, as long as beginners are not permitted to venture beyond their depth; or while they exercise themselves in company with adults.

In winter, a portion of hot water, with half an ounce of soap, and a small quantity of bran, may be added to that which is fresh drawn; or, in families where it can be easily procured, a little warm milk renders the bath still more pleasant and beneficial.

New-born infants, or those of only a few weeks old, should at first remain but a few minutes in the bath, which time may be gradually extended to a quarter of an hour, and still longer, as they advance in age.

The bathing-machine ought to be deep enough to immerse the child, at least up to its breast, in the water.

During the time of bathing, the person attending the infant should not neglect to wash diligently its whole body with a sponge, or to rub it with a piece of soft flannel.

Independently of these hints, I shall now proceed to state a few rules necessary to be observed on such occasions.

1. The child should not be plunged into the bath while in a state of perspiration. If this circumstance be properly attended to, it would be preferable to bathe children early in the morning, about half an hour after they have risen*.

* For my part, I would not venture to send a child to the bath at so early a period of the day: two hours after breakfast appears to me the most proper time; for reasons I cannot detail in this place.—*Transl.*

2. Bathing

2. Bathing ought not to be attempted immediately after a meal; as the stomach requires an interval of three hours, for the digestion of food.

3. On removing children from the bath, the danger of taking cold must be carefully avoided; for when bathing disagrees with them, the inconveniencies thence arising may often be ascribed to negligence committed in this respect: hence they ought to be wiped dry as speedily as possible, and warm linen kept in readiness, for immediately covering their bodies. Infants may then be placed in bed, which, in winter, should be previously warmed; and they will generally fall into a refreshing sleep, attended with a gentle and beneficial perspiration.

Young people who have already been accustomed to the cool bath, need not be put to bed, but rather induced to take brisk exercise after it, in the open air; though much depends here upon the circumstance, whether they have been bathed in warm, cool, or cold water. If the first-mentioned temperature has been used, they should immediately be put to bed; for nothing is attended with more dangerous consequences than contracting a cold after warm bathing, which opens all the pores, and disposes the body for a general perspiration. In such a state, every draught of air, and especially the sudden removal to a cold atmosphere, would occasion the greatest injury: the usual effects of such imprudence are, catarrhs,

diarrhœas, and glandular obstructions. On the contrary, after cool bathing, the attack of cold is not much to be dreaded: but it would be proper to take active exercise immediately after quitting the bath; a rule which is particularly applicable to children of an advanced age. In rough weather, however, it is more advisable to keep the young party, after bathing, for half an hour in the nursery, where they may run about according to their own pleasure, and then enjoy the fresh air, but with strict injunctions not to sit down on the grass.

No prepossession whatever ought to deter us from so useful a practice; because bathing, under certain conditions, beneficially promotes the recovery of children from diseases; for instance, from the rickets, scrophula, wasting of the body, and likewise from cutaneous affections, such as the rash and itch; in which the lower class of people possess unfounded prejudices against the bath. It is, indeed, true, that in the cases last mentioned, it has seldom procured the desired relief; but it should also be observed, that the rules and cautions before detailed, have not, in general, been attended to; and hence it has been imagined, that bathing is hurtful in coughs, catarrhs, and eruptions; yet it is only necessary to avoid taking cold, by causing children to be well dried, and then to be removed to their beds, after coming out of the bath. In the diseases above alluded to, the

the water should be *moderately warm;* though it would be prudent, on critical occasions, for parents to avail themselves of medical advice.

It is the general opinion, that bathing is detrimental to children in winter, because they are then more subject to colds; but, in a warm apartment, this is a groundless apprehension. Nevertheless, the prevailing practice of placing infants only with one half of the body in the bathing-vessel, while the whole breast and head continue above water, is certainly dangerous; inasmuch as the lower extremities are in a state of perspiration, while the upper part is perhaps twenty or thirty degrees colder: besides this incongruity, the necessary friction of the whole body is also frequently neglected.

Nor should washing and rubbing the head, during the time of bathing, be omitted; as it will prove the most effectual means of clearing it from scab, and other impurities. It is also a vulgar prejudice, to suppose that the child must die, if any water should run into its ears.

After the head has been thus washed and rubbed, it would be proper to cover it with a hat or cap, previously to its being exposed to the open air. Where this precaution was slighted, I have observed that infants became subject to eruptions.

Independently of the great advantages resulting from a regular habit of bathing, there are others equally important, which may be derived from

washing

washing children daily, after they are a few months old, at first with cool, and afterwards with cold water.

A piece of soft sponge dipped in water, should be very expeditiously applied several times over the whole body, as well as the head, and immediately wiped with dry cloths, kept in readiness for that purpose. After the third and fourth years of age, children should be gradually accustomed to cold water, as it is taken from the nearest rivulet: they will soon experience its comfortable effects, and be induced spontaneously to perform a duty incumbent on their parents or attendants.

Young people ought always to be washed at an early part of the day, before they are bathed; and the former practice should never be neglected, even on those days when the bath cannot be procured. There is, perhaps, in the whole circle of Nature, no remedy equal to that here suggested, on account of its tonic or bracing powers. Cold washing preserves the constitution from coughs, and the attacks of catarrhs and spasms; in short, against all the maladies arising from direct debility: its principal advantages may be justly ascribed to the sudden, though gentle, stimulus it imparts to the body, at an age, and in constitutions, where neither cold nor cool baths can be resorted to with safety.

From these general observations, the reader will perceive the motives which induced me to advise, with

with such precaution, the use of *cold bathing* at a tender age; and, indeed, contrary to the opinion of many modern writers on the treatment of infancy, who apparently pay too little regard to the laws and manifestations of vital power in individuals.

I am convinced, that washing is excellently calculated to inure the bodies of children to the impressions of the atmosphere; that it prepares them to encounter with more boldness and security, all the vicissitudes of the air and weather, after the fourth year of their age. Hence, I again request the attention of parents and guardians to the following proposition: namely, that every suggestion relative to the physical treatment of infancy, is intimately connected with the plan, and that a daily exposure to fresh air can only be attempted with safety when children have, from an early period, been habituated to cold washing. This salutary practice is well adapted to prevent the skin from becoming tender and sore, on the least occasion; or, if it unfortunately be already in that state, the parts affected ought to be frequently washed with cool or cold water. To promote its good effects, it will then be necessary to apply, externally, an absorbent powder of the *semen lycopodii*, or the seeds of club-moss, but not, upon any account, to use preparations of white-lead, which inevitably suppress insensible perspiration, while the virulent metallic particles

ticles are absorbed, carried into the circulation of the fluids, and cannot fail to produce dangerous consequences: neither should the remedy last mentioned be ever employed in soreness and discharges of the ears, nor in any cutaneous diseases, where its effects would indeed be dreadful.

In eruptions of the head, every external application, nay, even fresh butter, is necessarily hurtful, and frequently tends to injure the eyes.

CHAP. VII.

OF JUVENILE EMPLOYMENTS.

1. *On Manual Labour.*

THE natural propensity to active employments cannot be too early excited, nor too sedulously promoted. It is, therefore, a duty incumbent on the guardians of youth, to afford them every opportunity of evincing the activity of their disposition.

In the third and fourth years of their age, children should be habituated to exercise their arms and legs for various purposes. The first attempt towards this useful end, may be made by directing them to lift up, and deliver to their parents, such small articles as happen occasionally to drop on the floor; to undo or unravel odd pieces of silk, and other texture; to count grains, and arrange them into certain order; to separate feathers from their quills; to scrawl over whole sheets of waste paper, or draw characters on a slate; and especially girls, as they grow taller, should be instructed in knitting, sewing, spinning, and other occu-

pations, according to their strength and capacities, either within the house, or in the garden. On this occasion, I shall suggest the following hints, as deserving attention :

1. To combine with every kind of labour, the idea of utility, or at least of attaining a certain end; so that young people may always know the ultimate object of their pursuits.

2. To give a decided preference to active play or labour, over that of a sedentary nature; for it has already been remarked, in a preceding Chapter on Exercise, that the latter species of employment, if carried to excess, cannot fail to be attended with the worst effects on the growing body.

3. To accustom children, as early as possible, to a certain regularity in all their transactions, and thus immediately to unite the spirit of order with that of industry. Hence, they should be induced to undertake their tasks at stated periods of the day, yet without resorting to pedantic or compulsive steps, which are not only unnecessary, but even hurtful, where every thing should be carried on by gentle and imperceptible means.

But a circumstance apparently insignificant in itself, demands a principal share of our attention; namely, that children may never be suffered to employ servants, or other persons, to aid them, on those occasions which require no foreign assistance: thus, after the third or fourth year of their age, they should be taught to take care of their play-

play-things, to put on some articles of dress, and to place their little effects, previous to retiring to bed, in a situation where they may readily find them in the morning.

Every species of labour, however, should be carefully adapted to their juvenile strength; for, while the body is in a growing state, hard work, such as lifting, carrying, or drawing heavy burthens in carts, is frequently the cause of ruptures, crooked limbs, and other deformities; of which there are but too many instances among the youth of the country. There, indeed, young persons are very early obliged to exert their muscular strength; a custom which would deserve every praise, if proper regard were paid to the relative power of the individual. Besides, the first efforts of industry ought not to be subject to painful constraint, in order to exclude the idea of their being attended with difficulty or trouble.

Lastly, it would be desirable to give children such employments as can be followed in the open air, if the nature of the weather and season will permit: by this judicious arrangement, their health and comfort will be equally promoted.

2. *Of Learning.*

The rules and observations which relate to the subject of administering food, are also applicable to the acquisition of knowledge. Crude articles of

of nutriment oppress and injure the stomach, because they weaken the powers of digestion: in a similar manner, too great an exertion of the mind is detrimental to the intellectual faculties. The juvenile age requiring a nourishment different from that of adults, it will be easily understood, that mental improvement ought also to be directed by a dissimilar method: too great an exertion, in the latter respect, is attended with relaxing and stupifying effects; consequently, the young mind should not be burthened with any other instructions but such as it is capable of comprehending.

In cultivating the moral powers of man, there is an absolute necessity of paying a due regard to the bodily constitution, as well as to the natural talents of the individual; every kind of excess being injurious to the subject, and contrary to reason. In the first five or six years of life, all scholastic tuition is not only useless, but hurtful; while these attempts at premature acquirements incontestibly evince, that the guardians guilty of such frivolities, are by no means acquainted with human nature. As a child under that age stands in no need of a tutor, but rather of a superintendant of its conduct, it is a peculiar duty of the latter, to confine his endeavours to the treatment and formation of the body; for it would be exceedingly absurd to interfere with the progress of the intellect, before the frame, or the instrument of the mind, is completely developed.

Hence,

Hence, I venture to term it a positive crime against Nature, when conceited pedagogues, or ignorant parents, determine upon giving their children an early and learned education. I cannot without emotions of pity, behold the wretched pride of those persons, who aim at producing literary prodigies in their tender offspring, in order to boast in the company of their friends, during the exhibition of acquirements which are but loosely connected in the tortured recesses of the memory. Such a scene affects my organs of sight and hearing, in a manner similar to that which is frequently the consequence of an overloaded stomach. But the ill-fated child is nevertheless burthened with fulsome praise, on account of its astonishing abilities; so that independently of the mischief done to its constitution, the sure foundation is laid for pride and vanity: thus the art of corrupting both mind and body, appears to have been reduced to a systematic form.

The power of reflection is, by such preposterous trials, exerted at the expence of health; digestion is necessarily impaired; and the body is deprived of the most essential particles of nutriment: hence arise vitiated humours, excessive mental and corporeal debility, and all the bad consequences resulting from such a preternatural state. Farther, it is certain, that efforts of the mind, if either too intense, or too long continued, occasion stagnations of the fluids, obstructions of

the glands, a disposition to spasms, epilepsy, or dropsy of the brain; because the treatment above alluded to, if pursued at so tender a period of life, when the organs have not yet arrived at maturity, cannot fail to be accompanied with extreme relaxation, and general want of energy.

All partial exercise, therefore, of the human faculties, is indisputably hurtful: the intellectual powers should be exerted only in proportion as those of the body are formed; and thus the instrument of the mind will become progressively more perfect.

The ancients habitually loaded the memory with knowledge, without being very anxious whether their children comprehended what they had thus mechanically learnt by heart; provided that they were able to repeat words and sentences. In modern times, on the contrary, the faculties of reflection and judgment are perhaps better cultivated, though that of memory is comparatively neglected. A disproportionate exertion, however, is in both respects injurious; and, according to experience, certainly more so in the latter case than in the former. There can be no doubt, that reflecting on a subject, requires greater efforts of mental vigour, than committing a moderate task to memory. The indulgence in the former practice, may be so far productive of detrimental effects, as it has a tendency to encourage a desire for speculative inquiries; to withdraw the little student into solitary

solitary retirement; to employ him with many useless objects of research; and to keep his mind in continual excitement. Thus, I have had frequent opportunities of remarking, that the health of young people becomes obviously affected: they imperceptibly lose their usual appetite, and consequently experience a reduction of muscular strength; they are also deprived of that peculiar juvenile sprightliness which no philosophy can replace, and acquire a prematurely grave countenance, such as is characteristic of children educated according to this inconsistent plan*.

On

* Although the truth of these remarks appears in a manner self-evident, yet the advice here given by the Author, admits of considerable modifications. If he means to suggest, that the system now prevalent in German schools, where exercises of memory are considered only as a *secondary* object, is inferior to that of our predecessors, I cannot but totally differ from him. To burthen and perplex a child's head with terms and phrases, the meaning of which it would often be even improper to explain, are such contemptible means of improvement, that I shall ever be ready to oppose them. But, on the other hand, it cannot be denied, that much injury may result from an extravagant indulgence, or rather encouragement, of children to reflect upon subjects beyond their comprehension. No prudent tutor will be so destitute of reason, as to approve of a method, by which the mental faculties of his pupil must be blunted and impaired, before they can possibly arrive at proper maturity. Hence I am disposed to conclude, that Dr. STRUVE's plan of exercising the memory, is pregnant with infinitely greater mischief than that of accus-

On the other hand, in exercises of the memory, the exertion of mental powers continues only during the time of such practice, and there remains a considerable portion of the day for recreation and amusement; but, if the propensity to pore and speculate on abstruse matters has once taken root in the young mind, its pursuits may then be termed perpetual.

Children should never be sent to school before they are five years of age; and even then, it would be improper to keep them engaged in learning longer than one hour at a time; for, by compelling them to spend several hours, perhaps in a damp room, the scholastic pursuits become extremely pernicious to health.

Exercises of the memory are frequently combined with those of the thinking faculty; and to learn by heart a short verse, or interesting story, will not be detrimental even to a pupil four years of age: it deserves, however, to be attended to, that such attempts be not made too often;

toming children to *think*, and to reflect on every object of pursuit, as he has himself advised in a preceding page; and that more real and permanent advantage would be derived from regulating, with due caution, the tasks of meditation, than from the usual method of prematurely stupifying a boy's head with grammatical, and other mechanical lessons, impressed on the loose receptacle of his memory, at the expence of all other faculties of his mind, which, if unimpaired and properly cultivated, might render him an ornament of his age and country.—*Transl.*

and

and especially, that a child never be suffered to overburthen its mind with a new lesson, till it completely understands the nature of the preceding.

There is another rule, which admits of no exception, but its limits are, nevertheless, frequently transgressed: it consists in the simple precept, that no other instructions should be given to a child, but such as it is capable of understanding. The contrary practice, however, is daily adopted; and young people learn a number of verses, and lessons in prose, eagerly by heart; though neither the use or propriety of such instruction is at all consulted. Indeed, an hundred other things are more necessary to be known, than the mechanical part of the alphabet; and yet, few persons will trouble themselves to explain to a child, for instance, why it has been placed in this world, and what is the ultimate object of human labours. Besides, instead of instructing our little ones, at an early period, in the right use of their senses, so that they may acquire an acute ear, a distinct vision, and a correct touch or feeling, we generally consider these as *secondary* objects. During the first period of life, we learn an incalculable number of facts and combinations, while the foundation is laid for all our future accomplishments. An infant begins to distinguish the colours, the figures, size, smoothness and roughness of bodies; it becomes acquainted with the things surround-

ing it; nay, the very nature and variety of food, as it stimulates its palate, are subservient to the daily acquisition of knowledge.

To gratify the natural propensity discoverable in children, we ought not to refuse them an opportunity of examining such objects as they are anxious to contemplate; and their imagination should be occasionally employed, by presenting novel scenes to their view: we should always endeavour to give either a satisfactory or evasive answer to their continual questions, but never to deceive them by fictitious explanations. It is matter of surprize, when we reflect what an almost incredible number of facts are contained in the mind of a child four years of age, though but of moderate abilities.

A very material error, however, is in this respect often committed, by employing the young student too long with such exercises; for instance, by exhibiting figures and pictures for hours together, and explaining a number of things in immediate succession, so that one effaces the impression of the other: in this absurd manner, the developement of the mental faculties is doubtless impeded.

Every spontaneous effort of children is, by this means, far more conducive to intellectual improvement, than constant teazing, or even compulsion: in short, the ideas peculiar to each individual, should never be supplanted or distorted by those of others. Correct notions can be acquired only

only by proper guidance, and such information as may be clearly comprehended by the child, without misleading or confounding it. Thus, the understanding will be infinitely more benefited by a just conception of a sensible object, within sight of the pupil, than by the recital of an excellent verse, the meaning of which is, to him, obscure.

It deserves to be generally known, that in the early period of life, children acquire a much greater number of useful facts during their hours of amusement, than by the most ingenious illustrations of teachers. In the former case, one child adopts the ideas of another, and their notions are progressively unfolded by reciprocal explanations*, provided that those whose manners are

* It is truly amusing, and worthy the attention of philosophic observers, to watch the intellectual progress of a young party, engaged in social conversation; especially when they aim at imitating adults. There appears to be complete order and harmony, as long as no strangers interfere among them: no chasms, or sudden transitions from one subject to another, confound the familiar circle. But the most remarkable phenomenon, which has often excited my admiration, is, that the young folks thus assembled, if they consist of well-bred children, are neither apt to prosecute a topic involving slander and calumny against their neighbours, nor liable to make digressions from the subject under consideration; a fault from which even parliamentary speakers are seldom exempt. Hence, I am disposed to think, that Dr. STRUVE's suggestions on this important subject, are drawn

are corrupted, be excluded from their company. As long, therefore, as our little ones have occasion to study objects of much greater importance to their future welfare and happiness, we ought not to hasten with them to the dusty school-room, where their acquirements, at so tender an age, are generally confined to the repetition of the alphabet and vocables.

But it will be asked, whether such children as display a peculiar capacity for learning, and a propensity to reflect upon subjects of inquiry, ought not to be sent to school, and habituated to exercises of the memory, at an earlier period of age than others, because they find no difficulty in their tasks? Consistently with my ideas, I cannot but answer in the negative; though it should be asserted, that such a child may in a short time attain great literary acquisitions. Nay, the very opposite plan ought to be pursued; for that early maturity of the mind certainly borders

from the very source of genuine Nature, such as she always shews herself, in every age and climate, when uncorrupted by artificial customs and habits. I am farther of opinion, that infinitely more good may be done by *passive* than by *active* instruction: the former will enable the young mind to exert its own powers of reflection, upon subjects within the reach of apprehension; whereas, by the latter, the feeble talents of youth, instead of being assisted and unfolded, are frequently crushed, or suppressed. Terror and coercion cannot accomplish, what examples and parables will surely, though more slowly, effect.—*Transl.*

on

on disease. Hence it would be more prudent to check so forward a pupil with judgment, to abridge his school-hours, and to employ him more with bodily than mental exercise. A boy of this description should be encouraged in manual labour; a girl in knitting, sewing, or, which is still better, in similar pursuits as her brother; because I cannot persuade myself, that any distinction between the sexes is, at this period of their lives, founded on reason.

Nature is the safest guide of man: her voice is paramount and prior to every doctrine. How salutary, indeed, would it be for our children, if the first instructions could be imparted to them under the influence of a serene atmosphere: many opportunities of illustrating and practically applying the lessons to different purposes, are there presented, which seldom or never occur within the walls of the school-room.

It is to be seriously lamented, that erudition from books is inculcated at so early a period of life, that on every subject of knowledge the human mind receives a foreign impression; that we learn more by heart than by original reflection, and generally believe on the assertion of others, what should be admitted only in consequence of previous self-conviction: thus we sacrifice the originality of character at the shrine of authority. Those who implicitly adopt the decisions and precepts of their teachers, without exercising

their

their own faculty of reasoning, are in a situation similar to that of an infant who has learnt to walk by the aid and direction of its attendants: such a poor being will indeed at length acquire the art of using its legs, but its motions will be wavering and unsteady, because it is accustomed to rely on extraneous assistance.

For these reasons, nurses ought not to be suffered to supply children with answers to questions addressed to them by others. If the latter are unable to give a pertinent reply, or at least an answer conformable to their own ideas, it would be more proper for them to remain silent; for all mechanical prattling serves no useful purpose. Nor should the expressions of sense be taught by the efforts of memory: thus the ideas of good, bad, handsome, ugly, large, small, as well as the sensations of what is sweet, bitter, &c. ought to be learnt in combination with their objects, and need only be a few times repeated, in order to make them permanent. But the farther developement, and application of these notions from general to particular cases, must be left entirely to the spontaneous efforts of the juvenile mind.

Children frequently consider things in a light very different from that in which they appear to adults; and their notions are sometimes truly ludicrous: yet, these being their *peculiar ideas*, we have no right to substitute our own. For instance, they are instinctively prone to attribute life

life and action to their dolls, and to treat them as beings endued with sense: we need not undeceive them; for, at this age, figures represent persons, and may serve as models for future characters.

Unless we propose to unfold the ideas of children by this harmless method, it would be more advisable to make no positive attempts at cultivating their senses and understanding, previous to the fourth year of their age. Instead of exciting their desire of knowledge, and teaching them a variety of new things, they might be amused by playing in company with others of a similar age, and their questions should be either simply answered, or, if improper, evaded by changing the subject. Let them rejoice in their existence, without troubling their memory; for, by improving and fortifying the body as the organ of the mind, we may the better prepare them for their future intellectual attainments.

The intimate connection subsisting between moral and physical education, induced me to make the preceding digression; though the principal object of this work relates to the preservation of the health of children, during the first period of their lives. All that can be said on this important subject, to mothers in particular, may be summed up in a few words; namely, that the developement of the mental faculties must never be precipitately conducted; that the cultivation

of

of the senses may be attempted in the gradual manner before described; and that the first years of infancy should rather be employed in attending to the proper growth of the body, than in improving the moral powers. Thus, the susceptible mind will not be in danger of receiving a wrong bias; and such children will, in all probability, become healthy and chearful members of society. By adhering to these simple rules, mothers fulfil their most sacred duties.

CHAP. VIII.

OF THE AFFECTIONS OF THE MIND.

1. *From the First to the Third Year of Age.*

PLEASURE and pain are, during the first and second years of infancy, the principal source of mental emotions. The expressions of the feelings of infants, their smiles and shouts, as well as their tears and cries, proceed either from their peculiar nature, in the expansion of their various faculties, or they must be ascribed to a bodily cause. Their occasional peevishness at this tender age, cannot with propriety be imputed to malice: and if it appears to be combined with spite and obstinacy, it then originates from improper treatment; as such attributes cannot be reconciled with the character of innocents. There exists, indeed, no creature more good-natured than an infant: as soon as its most pressing wants are relieved, it will be perfectly satisfied with its condition, and perhaps fall asleep; it eats and drinks almost every thing presented to its palate, and cries only from pain or hunger. Those writers on education,

education, who erroneously believed children to be possessed of innate malignity, were certainly unacquainted with human nature; inasmuch as the latter acquire all their vicious propensities from a perverse method of treatment: guiltless and immaculate, like the first of men, comes the babe from the hands of the Creator.

External impressions affect infants more suddenly, because they are incomparably more irritable than adults: on account of their incessant activity, we find that pleasure and pain, smiles and cries, alternately succeed, and are interrupted only by sleep. As they are more forcibly stimulated by every disagreeable sensation, they are consequently unable to suppress pain; the effects of which, as well as those of comfort and pleasure, may be distinctively perceived in their features. Yet, on these occasions, the temper and affections of children are frequently misconceived: people are offended at their lamentations; and unthinking nurses, blinded by passion and prejudice, do not hesitate to beat the helpless babe, without examining whether its cries are not occasioned by a pin, or gripes of the bowels.

But it will here be expected, that I should lay down some rules of management relative to this point. In order to discover the cause of the child's uneasiness, it ought to be loosened without delay, and if neither a pin, nor too tight a dress, have produced its complaints, all the other

symptoms

symptoms should be properly investigated; for instance, whether it draws up its legs in consequence of a painful state of its bowels. If the abdomen be bloated up, the restlessness very great, and the skin hot to the touch, an emollient clyster may be then administered, and the child be bathed in moderately warm water. But if the true cause of the affection cannot be ascertained, it would be more prudent to resort either to some harmless expedient, by diverting its attention, or to apply for medical advice, rather than to venture upon the administering of a medicine.

It is almost superfluous to observe, that when the complaints of infants proceed from natural causes, such as hunger, fatigue, &c. these must be speedily removed, without teazing the little patient with unnecessary delays, or disappointments; which tend to spoil its temper, and render it obstinate. Should, however, at this early age, their cries be the offspring of caprice, which has unfortunately been encouraged by improper indulgence, the best method of preventing a return, is to treat them with indifference, and not to comply with their demands. A few experiments to that effect, if steadily persevered in, will decide the advantage of the plan I have proposed.

2. *From the Third to the Sixth Year of Age.*

At this important period of human life, the passions, properly so called, take their origin: they are produced and fostered by the relative situation into which children now enter. An irrational treatment, therefore, cannot fail to fan those desires, even to a degree of insanity.

The various propensities to display anger, obstinacy, spite, and other indications of a peevish disposition, ought to be treated with extreme precaution. Hence, young people should never be provoked, or beaten in jest; for it is well known, that even the canine race acquire an irascible temper by such treatment. ROUSSEAU justly observed, that "if children meet with opposition merely in the things themselves, and not in the will or arbitrary power of others, they will not only be for ever exempt from anger and obstinacy, but likewise remain more healthy."

By cavil, contradiction, and continual opposition, the temper and character of the most amiable children will be changed. It is therefore necessary to treat them according to their age and capacities; for a rude, ill-natured, and passionate nurse, will naturally impart a similar disposition to the child intrusted to her care.

Spite and obstinacy are most effectually cured by discouraging gusts of passion, and avoiding the oppor-

opportunities of their recurrence. If an infant be accustomed to extort things by crying, no attention whatever ought to be paid to such humours, and the desired object must not be granted. A few attempts of this kind, if persevered in, will be attended with the best effects; as, on the contrary, the little claimant will redouble its vociferating efforts, if it should observe its attendants in the least inclined to listen to such capricious whims.

Indignation, which arises from a sense of real injury, is a serious passion, and generally strikes deep root in the human mind. Children possess a very acute perception of the injustice done to them by unmerited punishment; especially if it be inflicted from arbitrary or vindictive motives: the consequences of such an error cannot be easily repaired. But, when these irregularities have once taken place, it would be highly imprudent to reconcile the injured child by flattery, or even by formally soliciting its forgiveness*; because

* I cannot, on this occasion, suppress a remark which occurred to me, when meditating on the practical tendency of these suggestions. The late FREDERIC THE GREAT, of Prussia, though the most philosophic prince of the 18th century, certainly was a man of a hasty and sanguine disposition. He frequently enacted laws, and enforced their obedience, till he discovered that they were utterly incompatible with the sentiments and interests of his subjects. Nevertheless, there is no instance on record, that this acute philosopher has ever

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because it would more strongly feel the offence, and triumph over the impropriety of our conduct. Every circumstance which may tend to rouse this passion, ought therefore to be carefully guarded against; and our behaviour should, on such occasions, be perfectly neutral.

Envy is one of those unfortunate affections of the mind, which in many infants appear at an early age, when they perceive that others are treated with distinction. It is, however, certain, that parents frequently contribute to excite the resentment of their little ones, especially by flattering the one that has been chosen as an exclusive favourite, and shewing a degree of indifference and contempt towards the other; by taking the former on the lap, while the latter is suffered to stand at a distance; in short, by making partial and odious comparisons. How can it be expected, that such imprudent management will make no impression on the susceptible minds of young people?

Chastisements and restrictions cannot cure so invidious a passion: severity only tends to in-

publicly repealed such legislative errors; but his inexhaustible genius always supplied him with a *new* expedient, either to modify such regulations, and to render them less injurious in their tendency, or to restrict them in such a manner, as to deprive them of all rigour and validity. Thus he uniformly saved his reputation through a long and active reign, preserved the affection of his people, and was universally admired for his wisdom and prudence.—*Transl.*

crease

crease the animosity of children, so that they will never be reconciled to the object of their hatred. Admonitions are likewise unavailing, or have but a faint and momentary effect on those who are unable to comprehend the tendency of our arguments. Hence we ought to pursue a plan, by which the very reverse of envy may be excited in the young breast, namely, sensations of benevolence and sympathy for the sufferings of others.

Pride is unnatural to children, and must therefore be considered as the result of an improper education. The most certain method of initiating them in the rudiments of that disgusting passion, is nearly the following: to procure them expensive articles of dress, as well as toys; to praise the elegance of their attire; to inform them that their little neighbours have very inferior clothes and play-things; to speak contemptuously of the lower orders of people, and thus to prejudice the untutored mind against that useful class of the community, the farmer, and the peasantry in general. Thus the foundation is laid for complete moral depravity; every thing will be estimated by its external appearance; the coat will soon be confounded with the man, titles and predicates, with qualifications and substances; so that these false notions cannot be corrected or abandoned during a whole life.

Fear and terror may be termed the real furies, or hob-goblins of children: but instead of coun-

teracting, as much as possible, their injurious tendency, unthinking persons studiously contrive to re-produce them, on every occasion, as the means of insuring obedience. I am inclined to believe, that such irrational conduct can arise only from the gross ignorance of those who are insensible of the dangers to which they expose innocent children. In proportion as their nervous system is more or less delicate in its organization, they will, by terrifying them, be subject to convulsions, hemorrhages, and apoplexies, which sometimes instantaneously prove fatal. Fear is attended with similar, though less sudden, effects; it palsies all the powers of the mind and body; and its impressions are seldom or never effaced*. A boy who had once been frightened by a dog, not only trembled whenever he saw that animal, for many years after the accident, but likewise turned as pale as a corpse, and was on the point of being attacked with a convulsive fit. These

* A very striking instance of the permanent effects of fear, is related by Prof. MAAS, in his classical work, entitled, "*An Essay on the Power of Imagination*," in German, reprinted at Halle in 1797:—A young man became subject to convulsions, every time he heard the name of Jesus repeated. This extraordinary phenomenon originated in the following circumstance: the mother of this unfortunate lad once invoked the name of Jesus in a terrific voice and manner, when she, as well as her son, were frightened by a tremendous peal of thunder, accompanied by violent flashes of lightning. Since that period, no argument has been strong enough to obliterate the impression.—*Transl.*

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unpleasant scenes recurred till the seventh year of his age; and the child could not be prevailed upon to visit places frequented by dogs. It is therefore a detestable practice to alarm infants, and confound their ideas, by the relation of frightful ghost-stories, and other marvellous events.

In order to guard young people against timidity, they ought to be made familiarly acquainted with the objects of fear. Hence we should not, for instance, speak with a terrific mien of a frog, that it is an ugly animal, and at the same time retreat from it precipitately; as cowardice is doubtless contagious: nor is it proper to appear alarmed at the noise of thunder, and impress children with awful notions respecting it; for if they had never observed others who tremble and look dejected at this grand phenomenon of Nature, they would sooner learn to consider it as an effect produced by a natural cause.

The apprehension of danger, in a dark place, is artificially generated in the juvenile mind. Pedagogues of the inferior class, are but too apt to combine representations of a terrifying tendency, such as the appearance of ghosts and spectres, with the idea of darkness. Hence they do not suffer their pupils to remain for a moment in such a situation, because they absurdly employ it as a mean of punishment, and frequently threaten the little delinquents with confinement in an obscure

hole. The very contrary plan, however, ought to be pursued: young people should be familiarized with dark places, not suffered to sleep in a lighted apartment, and perceptions of an agreeable nature should be connected with those of darkness; for example, by instituting nocturnal amusements and diversions.

To threaten children with future correction, is the most certain method of rendering them timid: for menaces and reprehension are frequently attended with worse consequences than even chastisement itself. The impression made by a wholesome punishment, when it was necessary, will not fail to produce the intended good effects; but the fear of impending castigation has an indisputable tendency to change the boldest boys into timorous cowards. Yet, there will be little or no occasion for using severity and coercion with children, whose age corresponds to that of which I treat in the present work. Abandon, therefore, the system of terror: if penal means cannot be dispensed with, let them be resorted to, without formally announcing them; and if rewards are to be granted, do not lessen their value by any previous promise.

It will now be reasonably expected, that I should likewise point out the way of preventing the attacks of fear.

1. Children should be made intimately acquainted with the objects of their apprehension; for

for mystery is the parent of prejudice. Should they, for instance, be easily frightened by dogs, it would only be necessary to make them familiar with several of these animals, and thus to extend the idea of their being harmless creatures, from the individual to the whole race. Similar effects will follow, by adopting this easy expedient in other instances; so that young people may be early habituated to apply particular observations, in such a manner as may enable them to form general conclusions.

2. Objects of fear ought to be gradually brought nearer, for the inspection of those who require to be convinced, that their anxiety is groundless. To support and confirm them in the acquisition of such knowledge, we should likewise afford them an opportunity of examining things of this intimidating nature by the sense of touch; and there is no doubt, that all uneasiness would soon be dissipated.

3. Another useful maxim, is that of depriving frightful objects of their peculiar character. Thus, HECTOR took off his helmet, at which little ASTYANAX trembled. It would also much contribute to banish fear, if, after having familiarized children with such appearances as had before excited their apprehensions, we purposely re-produce similar sensations, by exhibiting the former figure, and again undeceiving them, with respect to its genuine nature. By repeating this simple expe-

riment several times, I venture to pronounce, that the success will be complete.

4. Let us contrive to change the impressions made by terrifying objects. To produce this desirable effect, we should combine agreeable or entertaining scenes with those of a contrary tendency. Such are, for instance, the nocturnal amusements above proposed: they may be farther encouraged, by bestowing rewards on the little ones who shall find things concealed in dark places; by representing the variegated shades of a magic lanthorn, and similar expedients.

On the whole, it must be observed, that the passions of young people cannot be regulated by mere reasoning or theorizing, with equal facility and so effectually as by the more practical methods before suggested. Declamations against timidity, however conclusive, will be of little or no avail; but frequent examples of undaunted actions, cannot fail to be attended with permanent advantage.

Of Inclinations and Desires.

It is a lamentable truth, that during the most innocent æra of human life, there are generated many mischievous propensities, which have an immediate influence on the health, as well as the moral character, of children. Induced by this consideration, I propose to suggest a few hints relative

lative to the errors committed, in this respect, by parents and tutors.

Avarice is the offspring of improper treatment: it originates from increasing the wants of children; by granting whatever their fancy induces them to demand; by overloading them with a variety of useless toys, and satisfying every wish. Thus the multiplicity of their desires, instead of being checked by prudent refusal, is constantly encouraged by the most extravagant indulgence: on the contrary, if they had remained unacquainted with a number of unnecessary articles, which not only serve for amusement, but lay the foundation for future convenience and luxury, they would never have claimed such unlimited favours. In order to remedy errors of this kind, we must steadily and inexorably refuse their unreasonable applications, especially those made with a view to obtain play-things conducive to no end; because a different conduct will be productive of endless solicitations, and parents will at length become slaves to the caprice of their own progeny.

Ambition is likewise the result of a defective education. When children are caressed and indulged in all their frivolous requests; when their orders are considered as peremptory; when we continually teaze them with questions, and offer them new proofs of our fondness; in short, when the infant miss or master is provided with

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a separate attendant, who is exclusively at their imperious command—how can it be reasonably expected, that such mismanagement is calculated to impress their susceptible minds with any other but ambitious and despotic ideas?

Curiosity is a laudable inclination; for a boy destitute of it, affords no hopes of eminent intellectual acquirements; and there is reason to apprehend that he will become an indolent and simple member of society. Fortunately, however, most children possess a considerable share of that instinctive desire of knowledge; so that we ought rather to guard against giving unqualified answers to their questions, than to rouse their inquisitive minds for premature reflections. For this reason, our reply should always be clear to their comprehension; and if we are obliged, from the nature of their queries, to treat them with evasion, it would be more proper to divert their attention to some sensible object, than to intrude upon them a fictitious explanation.

Voracity, and a longing for particular dainties, are of artificial origin, and arise in children who are accustomed to excess in eating, or in whose presence adults frequently express a degree of pleasure, on having partaken of delicious viands. Young people are not naturally addicted to either gluttony or epicurism; and if their nutriment be sweet and wholesome, they will not easily require a change, which might corrupt their appetite, or

impair

impair their palate. Hence substances, which stimulate the latter, and vitiate the former, such as spices, sweet-meats, or pastry, have a direct tendency to produce gluttons. It is, however, no difficult task to habituate our progeny to a frugal and simple diet, which, when diluted with plain and pure water, is most conducive to their health and future prosperity. Thus trained up, under the inspection of judicious parents, they will not overload their stomach with a greater portion of food, and drink, than their tender organs can digest.—Besides, it deserves to be remarked in this place, that the rearing of a voracious child is attended with double the expence, which might be more advantageously bestowed on the cultivation of its mental faculties.

APPENDIX.

I.

ON THE PERIOD OF EVOLUTION, DURING THE AGE OF CHILDHOOD.

(*From the first Appearance of the Teeth.*)

THE whole period of infancy involves a state of progressive evolution. Nature then proceeds with more rapid steps; all the functions are more active; the developement of the different powers takes place more speedily than at any other period of life; and there are continual efforts of the constitution to complete the organization of man. As the growth of the body is more obvious in the first weeks after a child's birth, than in the succeeding, we may easily understand that the formation of the whole frame must be accelerated in the proportion as it is nearer its origin, and retarded as it advances towards its completion. Yet, during the whole of this stage, the unfolding progress is considerable; but less so at a juvenile age; till

till at length Nature completes the master-piece of all her works; that admirable organic structure, to which she then endeavours to impart the requisite degree of firmness and stability.

There are, however, several periods of human existence, at which we observe unusual exertions of the plastic powers, and remarkable changes in the whole physical system of mankind. Such alterations are generally evident, first, about the second year of life, when the teeth likewise appear in a more perfect state; secondly, about the sixth or seventh year, in consequence of a more rapid growth of the body; thirdly, about the time of puberty; and lastly, at that æra of human revolution, which is peculiar to women who not only cease to menstruate, but likewise become barren.

Although, in many individuals, these periodical changes are not very striking, yet they nevertheless take place; because, in every healthy person, they are conformable to the unalterable laws of Nature.

These respective periods deserve, indeed, the particular attention of the physician, but more especially of the parents and guardians of youth: and the treatment of children, during such changes, is of the utmost importance; as the consequences resulting from their physical education will then become manifest, accordingly as it has been more or less rationally conducted.

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In the present Section, I shall endeavour to engage the interest of mothers and tutors, chiefly to that period of evolution which takes place in children about the second year of their age. I have purposely selected this epoch; because the most obvious alterations then happen, though in some instances they occur either sooner or later.

Those unfortunate little creatures, who are the victims either of debility or disease, as well as others that possess an uncommon susceptibility of impressions, are subject to much affliction during the above-mentioned time; while such as are in a *perfect* state of health, almost imperceptibly overcome its influence.

Although it has been remarked, that weakness and want of energy arise from improper diet and regimen, in the manifold infantine affections, yet observers in general have been less attentive to that preternatural irritability of the system, which is peculiar to the present generation. We are, indeed, frequently surprized that blooming children, who appear to be perfectly healthy, are, on the first attack of disease, surprizingly reduced in their muscular strength, and sometimes suddenly carried off by death. I shall therefore endeavour to describe that condition of the body, in which young persons obviously possess extreme susceptibility for excitement:—it is distinguished by an uncommon obesity, and a certain fullness of blood, which circulates with rapidity; they have a florid

counte-

countenance; their appetite is almost insatiable; they likewise unusually increase in size and plumpness, but their bellies are frequently hard; they are troubled with worms in abundance; their stomach is filled with viscous humours; in short, their prosperity is exceedingly precarious. If these little ones be subject to any diseased action, such as teething, the small-pox, or other fevers, they are, to the astonishment of their deceived friends, most violently attacked, and often fall the victims of illusion.

The most frequent symptom which characterizes the first period of evolution, manifests itself about the second year of life, by a high degree of irritability, and a sensible change in the tender constitution of infants. Some, indeed, acquire additional chearfulness and vivacity, but others become gloomy, dejected, indolent, and peevish. Passions of every kind, but especially terror and fear, at this age, make more lasting and hurtful impressions than at any other. The whole system is susceptible of the slightest excitement; there is obviously great debility; children become more slow and timid in walking, so that they will scarcely venture to advance a few paces, though they had already made considerable progress; they are more easily affected by heat, cold, and all the vicissitudes of the atmosphere; and even the cold bath, which formerly produced comfortable sensations, can now no longer be supported.

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During this epoch the teeth make their appearance; as the general activity of the physical powers promotes their protrusion. There is an accession of fever, which principally affects the thighs, so that infants are scarcely able to move them; nay, the very bones are then softer, and more flexible. FOURCROY, in his work, entitled, "Education adapted to the order of Nature," is inclined to ascribe that febrile state to the consequences of dentition.

In the whole course of this periodical evolution, we may remark certain crises, which are attended with violent symptoms. Such an exacerbation, for instance, is very perceptible when the teeth burst forth suddenly, in consequence of a general revolution taking place in the physical nature of the individual.

In many infants, however, who are otherwise healthy, this developement is not accompanied with any remarkable appearances, though it is distinguishable by a certain degree of debility, which formerly could not be discovered.

All the faculties are now unfolded, as it were, by a sudden shock; many latent inclinations or talents are excited, and even the features of the child are visibly changed.

As soon as this important period is overcome, all the symptoms before enumerated, subside; yet they are productive of consequences more or less obvious. The little patient again begins to

is able to endure the cold air, becomes fond of cool bathing, and progressively recovers the regular exercise of all its functions.

The effects of such a revolution, in the physical nature of man, are great and inevitable. Weakly and delicate children now become more firm: those who were formerly troubled with diarrhœas, or involuntary vomiting of unassimilated food, are able to digest even crude articles of nutriment; while others, whose growth had been hitherto retarded, more rapidly increase in size, and in a short time learn to walk. Diseases which yielded to no remedy, are frequently cured during this period. Similar alterations take place at the age of puberty, when many troublesome affections, apparently incurable, such as epilepsy, spasms, and hectic fevers, suddenly disappear. In like manner, infants who, previously to the appearance of the teeth, were afflicted with flushing heats of the face, bad coughs, and continual fevers, are, by dentition, speedily relieved, even though they had been so much debilitated, that they could scarcely be rocked in the cradle. With respect to the faculties of the mind, there occur changes equally important: indolence is generally succeeded by vivacity, and a different turn is given to the various inclinations and desires of the individual.

But, unfortunately, at this period likewise, most of the diseases incident to childhood, such

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as scrophula, swelling of the glands, and the rickets, take their origin: those morbid predispositions, which hitherto remained in a dormant state, are now formed and developed.

These diversified bodily and mental changes, however, with all their consequences, have been exclusively, though improperly, attributed to the natural phenomenon of teething, because they occur about the same time; yet the protrusion of those useful bones is only the effect, and not the cause, of the general revolution of the body. All the alterations here alluded to, may indeed take place, without being attended with an eruption of the teeth: and this is frequently the case; for dentition, whether happening sooner or later, is merely an adventitious symptom. Experience informs us, that some children overcome these changes with the greatest facility, while others are violently afflicted with a variety of complaints, which are by no means essentially connected with the protrusion of the teeth; nor are they always observable at this period. How can it therefore be maintained with propriety, that they are affections peculiar to that stage of life? An observation which is so well founded, could not escape the learned WICHMANN*, who has proved by

* See his "Ideas for establishing the Diagnosis of Diseases," vol. ii. p. 3-87, on difficult dentition: one of the most valuable medical works in the German language; of which, it is to be hoped, a translation will speedily be published.—*Transl.*

conclusive arguments, what had been merely conjectured by the ancient physicians, that teething itself is no disease, but a simple plastic effort of Nature, similar to that she displays in the formation of all other bones: this ingenious writer has satisfactorily refuted the erroneous supposition, that many diseases are connected with the acquisition of the teeth.

It cannot, however, be denied, that children are sometimes afflicted with convulsions, diarrhœas, and apoplexies, at the very time when these necessary instruments of mastication burst through the gums; but such maladies must be considered entirely independent of that circumstance; because they are symptoms of an affection which cannot even with propriety be called a constitutional disease. Hence teething is an original process, which ought to excite no greater degree of apprehension, than the growth of any other part of the body.

Although infants are subject to much uneasiness and pain, when several teeth appear at the same time, and more readily overcome that process of Nature, when it takes place by gradual steps, yet it cannot be denied, that the sudden protrusion of these bones is not the immediate and only cause of their distressing situation: on the contrary, their principal affliction arises from great debility, and universal irritability, of which the former phenomenon is only the consequence.

Thus,

Thus, fever, convulsions, &c. are not the concomitant or necessary symptoms of the extraordinary tension and irritation of the gums, but they must be attributed to the disordered state of the whole body. No child ever dies of dentition itself, but many fall victims to their morbid condition in general.

Should, farther, at this period, an infant be unfortunately attacked with a variety of diseases, such as the scarlet-fever, and other malignant eruptions, these will be sufficient to account for the cause of its dissolution, without attributing it to periodical changes, which are merely accidental. It will afford me inexpressible pleasure, if I should succeed in banishing but one of the terrific objects, at the very idea of which tender mothers frequently tremble, when the lovely babe begins to cut its teeth. Hence I am induced to repeat, what I have endeavoured to prove, that *teething is no disease.*

In order to return to the subject of inquiry, relative to the developing period of childhood, I beg leave to remind the reader, that there are two classes of children peculiarly liable to be affected, during that revolutionary stage of life; namely, those who are in a very debilitated state, and others who, though apparently robust and vigorous, possess a preternatural susceptibility of every stimulus. This distinction, indeed, deserves the serious attention of mothers and nurses; as the

treatment of infants, according to their respective bodily constitutions, greatly influences that period of their lives. There are, indeed, remedies calculated to remove debility; and, on the other hand, we are not destitute of means tending to diminish too high a degree of irritability: both objects may be attained by proper management.

Having already, in the former part of my work, treated explicitly of this subject, I shall conclude it here, with a general retrospect.

The most effectual method of strengthening weakly children, shortly consists in attending to the following points: a temperate atmosphere; pure air within the nursery, and abroad; daily bathing; daily washing with a sponge dipt in cold water; wholesome nourishment, which is most easily obtained by the milk of a healthy mother or nurse; a dress neither too warm nor too thin, without paying too particular a regard to the season; lastly, a sufficient, and not fatiguing, degree of exercise.

On the other hand, an excess of irritability may be remedied, by avoiding too warm a treatment; allowing but small portions of animal food; no spices, or other heating substances; and especially by banishing from the table of young people, those destructive spirituous liquors, whether mixed* or

* A few days before this sheet was committed to the press, I had the mortification to witness a singular instance of prejudice.

or pure, as well as wine, ale, strong beer, and coffee.

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judice. In a citizen's house, I met with an elderly female who visited the family, and imprudently gave to an infant, two years of age, a draught of her mixture, which consisted of strong brandy and water. On my animadversion upon the impropriety, and dangerous tendency of such a beverage, this good lady exultingly replied, that she was the grandmother of a numerous progeny, and that she had been in the habit of allowing a similar drink to eleven of her own children. So satisfactory appeared this answer to the company present, from a widow who had survived two respectable medical men, that I perhaps was the only person in the room, inclined to enlarge upon the subject. After a short pause, I took the liberty of inquiring, whether these eleven children of professional fathers, had been reared and bred healthy members of society? or whether they had been afflicted with diseases, and fallen the victims, either of spirituous mixtures, or similar causes, originating from improper habits? On putting these questions closely to the maternal breast, I can assure the reader, that my conjectures were not altogether ill-founded: with equal reluctance on the one side, and indignation on the other, little more could be said to terminate the conversation, than that this venerable matron had at present *only two* married daughters, to render her age comfortable; but I was not informed, whether any more of her children were in existence.—Such, unfortunately, are the consequences of a stimulating plan: nay, I have seen parents, not only of the lower classes, but even in the more enlightened circles, who were so infatuated in favour of absurd customs, that they could not relish their wine after dinner, their punch at night, —not to mention the ale and porter—nor their coffee, or highly-flavoured chocolate for breakfast, without indulging their

The treatment last stated, has been proposed as the most proper for obviating the consequences of difficult dentition. Indeed it has frequently been observed, that children properly managed, easily overcame the dangers attendant on that critical period. Thus, for instance, those who are sent to the country, generally cut their teeth with less symptomatic affection, when suffered to take regular exercise in the open air, than others confined within the stagnant atmosphere of towns. This assertion, however, can be admitted only in a very different sense from what has usually been supposed; for there can be no doubt, that so rational a conduct is, on the whole, more conducive to health; and consequently tends to prevent those mischievous symptoms, which but too often distress parents and their family: hence we may understand, why the developing process takes place in a more calm and gradual manner, and is not accompanied by any violent revolution of the body, or by the train of diseases before enumerated. These considerations appear to be so conclusive, that we ought to consider the constitutional treatment of infants, at this particular epoch

little ones at least with a taste of these *liquid fires*; even though the innocent lambs were scarcely weaned from the breast of a dissipated parent, or a corrupted nurse. Who can see such detestable practices, without feeling the indignation congenial to the human mind, when we are convinced of their ruinous effects?—*Transl.*

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of their lives, in a more consistent point of view; namely, so far as their health, in general, is thereby concerned. I shall therefore only add, that if we train up our young descendants in a judicious manner, they will not be subject to the numerous maladies which otherwise usually afflict children; because the natural order of their physical evolution, instead of being impeded or checked, will thus be beneficially promoted.

On the Treatment of Children, during the Period of Evolution.

In order to avoid repetition, I shall only observe, in a general manner, that every thing which has a more or less direct tendency to brace the infant body, and to contribute towards an easy and unrestrained developement of all its faculties, as before suggested, ought to be strictly attended to. During this period, children are more than usually debilitated: they are neither able to endure strong impressions from without, nor any exertions of their muscular strength. These considerations ought to influence the whole of their treatment; as we cannot fail to discover the temporary manifestations of weakness, by paying a small share of attention to the subject.

Every effort is now extremely improper, and that of walking is attended with particular danger; yet, nevertheless, we are generaly most anxious

anxious to place a child on its legs, and to try a variety of expedients, that are intentionally repeated, though with increasing weakness, especially when it is tottering and disposed to fall; a circumstance of which no notice had been formerly taken. I have already remarked, that the bones are, at this period, much softer, and more flexible. Hence it may be accounted for, that feeble children are then most liable to dislocations and fractures, as well as to incurvations of the spine; for the generality of deformed persons date their misfortunes from that æra. From this source also arise the rickets, in consequence of tubercles which are deposited on the joints, so that the child becomes bandy-legged. All those evils, I venture to pronounce, are chiefly occasioned by too great an exertion in walking.

For these reasons, it would be most advisable, and prudent, to leave infants in that situation to their own choice; not to compel them to walk, when they find such attempts attended with difficulty; to allow them to roam about at pleasure; and, if they shew a disposition to a sedentary amusement, to afford them frequent passive exercise in a carriage, or little chaise. All untoward symptoms will spontaneously subside, after this general and debilitating revolution; especially when no harsh, or premature, measures have been adopted.

A crooked

A crooked posture of the body, if long continued; a reclined position while in bed; much sitting, or constant carrying on the arm, are exceedingly detrimental to the straight growth of the body, at this decisive age.

With respect to the operations of the mind, also, children are now more irritable than at any other stage of life. We ought, therefore, to be somewhat more indulgent towards them; without, however, spoiling their temper. Much patience will consequently be requisite, as it should be considered, that their irritability, peevishness, and ill humours, arise from the preternatural state of their frame: yet here, likewise, circumspection is necessary, that we may not lay the foundation for moral depravity; by allowing them a number of useless things, which soon become indispensable wants; by anticipating every frivolous wish, or even suffering them to tyrannize over their attendants, and thus rendering them capricious and despotic. We ought therefore not to permit servants and visitors, from a mistaken idea of raillery, to teaze children when they are under the influence of morbid sensibility, nor to beat and toss them about, though only in a jocose manner. Lastly, terror and fear are inevitably attended with the most injurious consequences.

All sudden changes in any part of the treatment to which infants have hitherto been accustomed,

tomed, are peculiarly hurtful: hence it is extremely dangerous to wean them when cutting their teeth; but such is the case only, when the more violent crisis of the developing powers has already commenced. For there are certain exacerbations, which from time to time return, and in which Nature makes extraordinary efforts: during these, a mother cannot safely withdraw the breast from the affected babe; and, consequently, weaning ought to be delayed till the constitution of the infant has recovered its former tone: thus, the interval between the two periodical attacks must be carefully watched, and employed for such purpose; a pause generally extending to several weeks*.

Another important point deserves attention: when infants are under the influence of this periodical affection, we ought to remark the nature and effect of whatever agrees, or disagrees, with

* Similar measures and precautions should be adopted, with respect to the inoculation for the small-pox; which, during the accession of the crisis above explained, and therefore precisely at the time of dentition, frequently proves fatal. For this obvious reason, the interval between two crises should be chosen; nor should any other changes be resorted to, while this formidable objection prevails. Nature absolutely requires tranquillity, and a suspension of all those additional excitements, during her great struggles, which are obviously marked by febrile action, and a high degree of irritability.

the

the little patient. I must, however, explain myself farther on this proposition, that I may not be misunderstood. It is, indeed, not necessary that we should indiscriminately grant a child every species of indulgence directed by caprice: hence, for instance, it would be highly improper to allow it the various alluring preparations of the pastry-cook, or confectioner; to cram it with food, or to carry it continually on the arm: nay, such practices are highly absurd; for we ought to study the nature of children, and investigate the effect of external impressions. Thus, if an infant shews a particular dislike to the cool bath, it should be made lukewarm; or if it cannot bear cold washing over the whole body, it will be sufficient to wash the lower extremities with cold or cool water. On such occasions, the particular desire or aversion of the young patient, as well as its comfortable or disagreeable sensations, will afford the safest guide for our conduct. In those little favourites, who are already spoiled by a weak and inconsistent treatment, it will be difficult to ascertain the propriety of the regimen, according to their natural expressions of desire and aversion.

With respect to a regular plan of managing children, during this critical period of life, mothers should not place implicit reliance on mercenary servants: the future welfare and happiness

of

of their offspring must be the greatest incitement to pay personal attention to that momentous office, which is imposed upon them by the bonds of conjugal and maternal affection.

II.

OF JUVENILE AMUSEMENTS, WITH RESPECT TO THEIR INFLUENCE ON HEALTH.

THE plays and recreations of children are by no means an unimportant object of inquiry: they may, in their effects, be compared to the labours and pursuits of adults. Who will presume to decide, whether the diversified bustle of our great cities, is not beheld and animadverted upon by more perfect beings, in a light analogous to that in which the innocent diversions of young people appear to those who watch their conduct? Parents only are susceptible of the agreeable impressions, which the attention bestowed on the transactions of their offspring affords: on the contrary, none but the haughty and self-sufficient can find such attention unworthy of their notice, or even expose it to ridicule. What a delightful scene does a tender mother present, in the sprightly tumult of her little ones, like the Roman matron of the Gracchi; a father like RACINE *, or HENRY the

* See RACINE the younger, in the biographical account of his father, where he expresses himself in the following words: "En présence même d'etrangers, il osoit être Père: il étoit de

the Fourth*, who participated in their amusements! And certainly no parent or tutor need blush at the examples of those illustrious characters. During the playful hours of young people, we find many opportunities of investigating their temperament and natural disposition; for the tender heart most readily unfolds itself, when it is animated by joyful and pleasurable emotions. Indeed, the principal outlines of the human character, are drawn in a state of childhood: they are not obliterated with the advancement of years; though future connections, and situations in life, should produce considerable changes.

The amusements of children, as well as the play-things, or toys, with which they divert themselves, require particular attention. On this occasion, however, we should not implicitly comply with their caprices, the rules of fashion, or the prevailing customs. All the pursuits of man, ought to correspond with the dictates of reason,

de tous nos jeux: je me souviens des processions, dans lesquelles mes soeurs étoient le Clergé, j'étois le Curé, et l'auteur d'Athalie, chantant avec nous, portoit la croix."—Memoires sur la vie de JEAN RACINE, p. 6.

* This great and good monarch happened once to be surprized by his prime-minister, when riding on a stick, in company with his young nephews. The discreet statesman wished to withdraw; but the King asked him, "Are you a father?" 'Yes,' replied the minister. "Well, if so, there is no occasion for either your bashfulness, or precipitate retreat."

so that they should be directed to a certain purpose; and this consideration must likewise determine the whole treatment of youth. As we are anxious in the choice of food, the selection of gymnastic exercises requires similar care; for it cannot be denied, that in the usual toys, and other articles contrived for the employment of young people, this object is little, if at all, attended to. Few parents are inclined to reflect, whether any of these expedients be useful or detrimental to the health of their offspring; whether they may not dislocate their limbs, or perhaps endanger their lives. Much of the misery prevailing in nurseries, and the premature loss of many valuable lives, must be attributed to this source. I therefore consider it as a duty incumbent on me, to call the attention of those engaged in the education of children to this important subject; and shall consequently divide it into two Sections. In applying the following remarks to practical purposes, the reader will find appropriate directions for choosing and regulating the different toys, and other contrivances, which may alike improve the juvenile mind and body.

1. *Of Games detrimental to Health.*

Although I do not intend to furnish a complete list of the various amusements which have been introduced among children, yet I conceive

it will not be difficult, from the nature of those I shall mention, to understand the tendency of others, with which I may be unacquainted. Thus, if I succeed in exciting a sufficient degree of interest on this topic, the reflecting parent will, I presume, be enabled to draw useful inferences from my general observations.

Almost every game may tend to injure health, by the manner in which it is played. The limits allotted to this work, however, do not admit of entering into minute explanations. He who possesses but a slight knowledge of the human frame, cannot fail to discriminate between safety and danger; as every thing depends upon the relative strength and exercise of the young individual. By gradual practice, for instance, one boy may attain to a degree of dexterity in fencing and leaping; which exercises cannot be attempted by another, without exposing himself to certain destruction. But there are various postures which are always attended with danger; inasmuch as they may occasion dislocations, or ruptures: hence parents ought, in this respect, to be attentive to the following gymnastic amusements of their children.

1. When young people are standing, and bend their head backwards to the ground, with a view to tumble over. On this occasion, they endeavour to preserve the equilibrium, by a sudden turn, and often experience dangerous falls. Thus the muscles of the abdomen are preternaturally stretched;

ed; the intestines are violently pressed downwards, and ruptures frequently produced. When children attempt to climb, they might undertake this species of muscular exercise with more safety and success without shoes, especially if these do not exactly fit the feet; as they soon learn to employ the latter with great firmness and flexibility. Hence, boys in the country are incomparably more expert in this pursuit than the youth of towns, who more easily injure themselves by falling.

2. Wantonly jumping for a considerable height, whether up or down, is attended with a violent concussion and extension of the muscles. The performers should therefore be instructed to make such efforts with inflected knees; to let themselves down first on the points of the toes, and then gradually descend on the soles of the feet.

3. Nor should too forcible exertions of muscular power be suffered at this tender age; for the lifting of great weights, particularly the raising of a ponderous substance from the ground, and bending back the upper part of the body, are extremely dangerous attempts; because, while in such attitudes, the muscles of the lower belly are contracted, and the bowels compressed between the midriff; respiration is obviously impeded; and thus ruptures are easily occasioned. We often observe young and feeble children lifting and carrying others of a much larger size; which, for

the reasons above stated, ought never to be permitted.

4. All partial exercise of the body, by which only one arm or leg is exerted, has a tendency to give the body a crooked form. Hence, playing at nine-pins, drawing hand-carts, carrying burthens on one arm, or shoulder, all are pernicious. The principal injury, however, arises from continuing such employment for several hours together; because, if it be practised with moderation, and but occasionally resorted to, its tendency is beneficial, rather than hurtful. Young people, therefore, ought to be taught to make use of both arms: for we generally neglect the improvement of the left hand; and it would be very desirable to contrive games in which both arms may be alternately exercised.

5. Sedentary plays, if long persevered in, are productive of bad consequences; because they are apt to bend the spine, and distort the body: the spinal column being too weak to support the incumbent part of the frame, the vertebræ yield to one side, in consequence of long-continued sedentary employments; for which reason, all games of this nature ought to be strictly prohibited.

6. Long standing is likewise detrimental to the straight growth of children: and as their legs are too feeble, by preponderating to one side, the same injurious effect is produced.

The

The games of children ought to be adapted in conformity to these observations. Bodily exercise is to them indispensably necessary, provided it be regulated according to the rules and cautions before detailed: in such case, it will neither endanger their health, nor their lives; and we need be under no apprehension from their efforts to climb or leap. Those, indeed, who tremble at every declivity, and will scarcely venture to move from the spot, are in greater danger of receiving injury, than the spirited and courageous boy, who generally is the most successful. Mothers are, on the whole, too anxious on these occasions, because their tender sex is not accustomed to bodily exercise: hence, by checking their little ones in every effort of leaping, they contribute to render them timid, without considering, that, by such injudicious means, they are ill prepared for encountering future dangers. For instance, in accidents from fire, they will be unable to save either their own lives, or those of others; and, if they in the least venture upon a sudden emergency, they hazard more than they are qualified to overcome.

A proper degree of precaution ought, therefore, to be inculcated at an early age: children should be warned of dangerous postures and leaps, as well as of heavy lifting and carrying of burthens, without, however, making them timid. When they happen to stand at the brink of a precipice, or have

climbed too high, it would be extremely improper to alarm them suddenly; as this measure tends to discompose them, and to bring on the unfortunate fall which we were solicitous to avert: instances of this nature are but too frequent. At such critical moments, there is no time for reflection, which therefore ought to be delayed till the young adventurer recovers from his situation, and his mind is susceptible of instruction. It is also an useless precaution, to deprive children of every instrument or utensil by which they might injure themselves, unless we propose to shut them up within the four walls of a nursery; but, in this case, they could not acquire any knowledge of the surrounding objects. A tumour, arising in consequence of a slight fall, or even a superficial wound received by the careless use of a knife, will render them more provident than all the subsequent exhortations *.

* It is perhaps necessary to remind the reader, that the author alludes here to children of a certain age; for it would be equally imprudent to deprive a boy five or six years old of every tool or implement, as to place razors, and sharp-pointed instruments, in the hands of infants at the breast. Nay, I need not point out this species of danger, which is sufficiently obvious to the senses of mothers or nurses; but I would rather entreat them to beware of those enticing poisons which they liberally administer to their infants, in the common gingerbread handsomely gilt with Dutch metal, or copper, that cannot fail to produce gripes, obstipations of the bowels, convulsions, and other fatal disorders.—*Transl.*

Nor

Nor is it pardonable to resort to chastisement on these and similar occasions; because the frightened child, already in a trembling state, would be injured by correction, both with respect to its health and moral character. Besides, an act of such violence may be attended with immediate and fatal consequences.

On the contrary, if an infant should have been hurt by a trifling fall, or bruise, it would be imprudent to pity and console it with a variety of conciliatory arguments: in this absurd manner, it is discouraged from future attempts; the impression made by the accident is in a great manner effaced; and the doctrine to be drawn for its future circumspection, loses its practical value. Although it may be difficult to suppress words on such occasions, yet we ought studiously to remain calm and silent. After the first effect of the paroxysm has subsided, then will be the time to make use of affectionate admonitions, and to point out to the child the perilous nature of the situation from which it has escaped. But I apprehend that mothers cannot be easily prevailed upon to act in this rational manner, so opposite to their acute feelings.

If young people are not incited, either by emulation, or a desire of imitation, they will hardly venture farther than their strength and ability can support them. The latter is too powerful an inducement; and wherever it operates, we ought

not to trust to the discretion of these young adventurers, but keep a more watchful eye over their games: for, scarcely have tumblers, rope-dancers, and other vagrants, erected their stage, when all the youth of the place become emulous in imitating their feats. Boys of every size and age attempt the most dangerous leaps; and being unacquainted with the advantages requisite to the successful performance of those useless arts, as well as with their own deficiency of strength and dexterity, they frequently place themselves in perilous postures, try hazardous leaps, and expose themselves to the risk of contracting ruptures, and other disorders.

Violent bodily exercise, such as fencing, leaping, manœuvres with horses, and lifting weights, are peculiarly hurtful after a meal. At no time is the danger of being afflicted with a rupture, greater than in a state when the power of expansion is increased by the repletion of the intestines. The resistance of the peritoneum is then much weaker; so that every commotion, every contraction of the diaphragm, and the muscles of the abdomen, may easily occasion a hernia, especially after a full meal, or after eating flatulent food. Hence we should be particularly careful to prevent young persons of every description from undertaking such exercise soon after dinner; as this requires from three to four hours for its complete digestion.

Nor

Nor is the present fashion of dressing boys in high breeches, and short waistcoats, calculated to prevent such fatal accidents. The pressure of the former, constricts part of the abdomen; forces the intestines downwards, and with every swift and reclined motion of the body, or sudden flexion of the knees, this compression takes place with increased violence, and is apt to produce the mischievous consequences before alluded to.

Although the absurd fashion of wearing laced stays is now almost entirely abandoned, yet we frequently see young girls dressed in long petticoats; which, as they obstruct every step, and may occasion the most dangerous falls, ought also to be abolished: indeed, the long trains of our fashionable ladies are equally cumbersome, and liable to the same objections. A light and easy garment, which neither impedes the free motion of the limbs, nor compresses the body, though it fit exactly to its shape, is the most proper for the constitution of the young, as well as the adult.

More attention should also be paid to the nature of such games as tend to injure the health of children. As our little ones are, in general, imperfectly instructed with respect to their influence, they ought not to be punished, or reproved, after having hurt themselves by a fall, or other accident; for this method is not calculated to make them sincere, but will rather induce them to conceal the pain and injury thereby brought upon them-

themselves. Thus, the consequences of trivial misfortunes become progressively more alarming, and the evil is at length incurable: there arise encysted ruptures, which either terminate in death, or, if it be not too late, the life of the child must be saved by an operation. As soon, therefore, as it is found that they complain of pain, in consequence of a violent exertion, we ought to encourage them to discover such a symptom without delay; to treat them with due affection; and, instead of severe censures, to give them a paternal admonition. Their bodies should be immediately examined, and the external seat of the complaint accurately inspected. Every swelling in the region of the navel, around the abdominal ring, and in the groins, may portend a serious rupture; especially if it be unaccompanied with pain, and yields to the pressure of the hand, when the body is placed in a supine posture. Dislocations of the arms and legs may be more easily discovered, from the impeded motion of these limbs. In all such cases, however, medical assistance should be immediately called in; as every attempt at drawing and pulling the body, while in a painful state, is extremely dangerous, and may increase, or even produce, the evil which unskilful operators endeavour to avert.

2. *Of Play-things, tending to injure Health.*

Most parents purchase toys for the amusement of their children, indiscriminately, from the neighbouring shops, without reflecting on their salutary or pernicious tendency. They frequently adopt the choice of others, implicitly regulate themselves by the established custom, and buy whatever articles are exposed to sale. Nor do the inventors and manufacturers of toys, in general, possess any knowledge of the useful or detrimental nature of their productions.

I therefore flatter myself, the following survey of the subject may induce many a good father, or mother, to devote some share of attention to those play-things which affect the health of their offspring.

1. Musical toys require a more select choice. Stringed-instruments, such as the harp, guittar, &c. are not so liable to objection; as the sounds produced by them amuse young people, especially if they consider themselves as the immediate agents of such effect. But wind-instruments, such as small trumpets, whistles, and the like, require too great an exertion of the lungs, and are especially hurtful at first, when the little musicians constantly keep them in their mouth. Nor is it perhaps, sufficiently known, that the efforts of blowing,

blowing, in a standing posture, frequently occasion ruptures.

2. All play-things made of plaister of Paris, clay, glass, porcelain, and similar materials, are peculiarly injurious to infants; because they are apt to break them, and thus either to wound their tender skin, or to introduce them into the mouth, and swallow particles of such noxious substances.

3. Playing with marbles, beans, coins, needles, &c. is sometimes productive of fatal accidents, when young children are permitted to toss them about in all directions, or put them indiscriminately into their busy mouths.

4. The usual toys made by potters, also deserve some animadversion. Such vessels are manufactured with inferior care and judgment; because they are intended for the diversion of infants; and though they are badly glazed and imperfectly burnt, the little possessors are nevertheless suffered to make with them experiments in cooking their supernumerary victuals, which, by neglect, are sometimes left in those diminutive pots and saucepans for several days, till at length the food turns acid. Thus it often happens, that the remainder is not properly rinsed out from the vessels, after it has dissolved the particles of lead contained in the glazing, which are then swallowed with the new portion of nourishment. Farther, the earthen play-things easily break, or the glazed coat

coat splits off; and if victuals are placed in them, the danger of poisoning children with lead is inevitable. This, indeed, is one of the hidden causes of that most dreadful disease of childhood, namely, a general reduction of strength, succeeded by a hectic emaciation. How often is the cause of this evil searched for in other, perhaps adventitious, circumstances, which suggest the application of remedies, while the source of the malady remains concealed, and is not even suspected to exist! Thus, the little patients lose all their energy, become every day thinner, are afflicted with convulsions, complain of pain in the region of the navel; their fingers and toes grow stiff and cold, while their voice becomes hoarse and languid, and in a few months they are completely reduced to a skeleton. Although all these terrifying symptoms should not at once appear in the same individual, yet we may often observe one or more of them prevailing in children thus neglected.

5. Vessels constructed of lead, pewter, white-iron, or bell-metal, may occasion similar bad accidents. Hence the little dishes and cups given into the hands of children, ought to be made of pure tin; and plumbers should not, upon any account, be permitted to mix them with lead, as is usually done; a species of adulteration deserving severe punishment, because it is fraught with mischief. Nor should trinkets of every kind, such as boxes, soldiers, &c. be granted to infants, on account

account of the danger attending the practice of keeping them in their mouths, and absorbing the deleterious particles of lead, or the painted coat. Similar precaution is required with respect to the articles of the tinman, who generally makes use of inferior tin for cementing his goods, while the white-iron is likewise coated with a metal containing lead in its composition.—Copper and brass vessels have already been pointed out as extremely improper; and I have myself observed, that such utensils, after sugar and acids had been kept in them for several days, were covered with verdigrease. As, therefore, the danger of poisoning young persons is much greater, than in adults, who possess circumspection and knowledge to avoid or remedy the evil, parents cannot be too careful to prevent the accidents of which I have warned them.

6. The colouring and painting of play-things likewise claim the attentive investigation of the guardians of youth. Verdigrease, orpiment, minium, or other preparations of lead, are used for that purpose. How is it possible to see infants introduce painted toys into their mouths, without feeling a degree of painful anxiety for their safety! I am happy to find, that this important subject of medical police begins to excite the vigilance of magistrates. There has, indeed, lately been published a proclamation by the KING of PRUSSIA, relative to the noxious tendency of painted toys.

Hence,

Hence, no other but oil-colours ought to be used for small ware; or, which is still better, it should be uniformly manufactured of plain wood that cannot be productive of injury though constantly kept in the mouth: such articles, therefore, as have lately become fashionable, are in every respect preferable to those by which motley figures are represented.

7. Play-things of confectionary, devices, &c. are also frequently painted with pernicious colours; nay, the young people consider them of superior value when they are gilt*; but, independently of this circumstance, they are peculiarly injurious, as articles of food.

8. All amusements which are attended with great exertions of the body, are in many respects hurtful. Of this description is the well-known air-tube, which requires a violent and quick effort of the organs of respiration, and is consequently detrimental to the lungs. The cross-bow also hurts the breast by its pressure; and the rocking-horse may occasion ruptures; an assertion which is confirmed by experience, within the circle of my own observation. Upon examining what has been clearly stated in a preceding part of this Section, there can be no doubt that the posture which the last-mentioned exercise requires, may be productive of those consequences; because children

* See p. 422 of the Appendix, Note.

in

in general mount this piece of machinery, and alight from it, with considerable impetuosity.

It may, however, be asked, how should the games and toys of children be arranged and constituted, in order to adapt them to the important purposes of health?

Sedentary games are perhaps better calculated for the amusement of day-labourers and rustics, who have fatigued themselves by hard work through the day; but for children, whose principal employment is playing, they are improper; and should scarcely be allowed to those who are about the age of puberty. In my opinion, therefore, inactive amusements ought to be resorted to only in certain cases, as an occasional substitute for others, and be continued but for a short time. Hence, the contemptible puppet-shows, and other clumsy figures, which serve only to corrupt the imagination, and destroy in the susceptible young mind every sense of symmetry and beauty, are peculiarly hurtful at an age, when the talent of distinguishing between incongruity and propriety is not yet formed; so that the ideas are in a manner distorted, and the future judgment of the child is prejudiced by a wrong bias.—There cannot be conceived a plan more absurd, than to entertain young people with such nugatory exhibitions as require a motionless attention. Exercise is the very soul of all play; because the activity of the different powers is attended with immediate consequences

sequences to the mental and bodily prosperity of the individual. For this obvious reason, the games which require muscular exertion, are not only conducive to health, but also improve the senses, and unfold the understanding. To put things together, and separate them; to erect and destroy houses built of cards, or other small materials; to dress a doll, or to arrange and construct little vehicles in their own way; all these are diversions which ought to be studiously encouraged, by procuring the articles requisite for such purposes. These, however, should be simple, and of little intrinsic value, as that is soon enhanced in the possession of the young artists. On this account, also, a drum, a whip, a hobby, a little chaise, or wheel-barrow, which they can manage without extraneous assistance, are preferable to a wooden doll, or the figures representing horses and carriages, which afford them amusement merely by their appearance.

Nor should girls be excluded from active exercise: it is a material error in physical education, to make that ill-founded distinction between the two sexes, and to condemn young females, almost from their cradle, to a sedentary life, by giving them scarcely any other play-things but dolls and tinsel-work, or trinkets; while the sprightly boy amuses himself with his noisy drum, and other active diversions. Such premature modesty is dearly purchased, at the expence of health, and

a chearful mind. What infatuation, to train up sickly women, debilitated mothers, and consequently a miserable offspring!

Once more may I be permitted to repeat, that all amusements are most beneficial to health, in the open atmosphere: there the little ones are effectually inured to all the vicissitudes of the weather; so that they can equally bid defiance to heat and cold. Hence they cannot be too much exposed to the fresh air, at some distance from towns or villages; where they will, in the summer, hunt butterflies, collect flowers, build little houses, attend to the growth of trees and plants, or similar pursuits of an innocent and amusing tendency. Almost every thing may be rendered subservient to their well-being and pleasure. Were it possible to keep a child continually in the fields and gardens, there would be no occasion for play-things; benign Nature would afford them a sufficient variety of objects for their amusement; for trees, flowers, stones, birds, in short, every thing around them, would excite and employ their attention: they would find an inexhaustible source of materials for constructing toys; which, being the works of their own invention, could not fail to be more useful than the most expensive artificial contrivances.

Society increases the charms of juvenile amusements. It is indeed very desirable and rational to allow numbers of children to assemble; yet it would

would be necessary to watch their conduct, but without rigour or anxiety on the side of the tutor; as they are then in the most happy situation. It has therefore been proposed to establish public pleasure-grounds, devoted to the benefit of young people, in every town or city; and likewise to appoint inspectors, to keep them under certain restrictions. Such regulations would, in various instances, be productive of good effects: they would prevent many ill-bred boys from running about the streets, where they are under no controul, and learn from each other the most improper practices.

On the whole, children ought, with equal care and propriety, to be allowed their regular play-hours, as they are compelled to visit the school: the former would, besides, be attended with greater advantages for the improvement of their physical and intellectual faculties, than the latter mechanical habit, at an age when they are not yet susceptible of scholastic instruction. I doubt, however, whether this suggestion will ever be realized. Houses for the deposition of dead bodies, previous to their interment, have been established in different cities of Germany; others, for receiving persons apparently dead, have been erected in various towns of Europe, and especially in England; the city of Halberstadt boasts of the first institution for inoculating the small-pox;—but which will be the first city in Germany that shall be

provided with a public pleasure-ground, exclusively devoted to children? I conceive such a measure of infinitely greater importance than theatres, ball-rooms, and common pasture-grounds.

THE END.

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